



**2 USB 2.0 Hi-Speed-Port MFP Server**

User's Manual

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# **Chapter 1      Introduction**

Thank you for purchasing this JMS-202 USB MFP Server (in the following referred to as "Server"). This Server is designed to connect your AIO/MFPs (All-In-One/Multifunction Peripheral), printers, USB mass storages (hard drives, flash drives, and memory card readers), and scanners, to your network, allowing all network users access to these shared USB devices resources.

## **1.1    About this Manual**

This manual provides introductory information as well as detailed instructions on how to set up and manage JMS-202 in various network environments.

To fully benefit from this document, you should be familiar with basic networking principles. The instructions described in this manual are based on the settings in a new Server. To reload the Factory Parameters, you can reset this Server back to Factory Default, which will restore most of the settings. For details, please refer to the chapter "Restore Factory Defaults".

## **1.2    Customer Support**

Should you require any technical assistance, please contact your product reseller. Or you can visit our website at <http://www.jaht.com> for latest product information. This document is subject to changes without prior notice.

# Chapter 2      Product Overview

## 2.1    Package Contents

Verify that nothing is missing from the package by using the checking list below. Please contact your dealer if anything is missing or damaged. All packing materials are recyclable. Please confirm the items in the package below:

- This Server (JMS-202)
- CD (Control Center and User's Manual and Quick Installation Guide)
- Power Adaptor

## 2.2    Product CD

This CD provides easy-to-use Control Center software, and the User's Manual and Quick Installation Guide.

### 2.2.1   Start-up Procedures

If your computer is configured to auto start CDs, this CD will start automatically when inserted. You can also navigate to the CD and start the autorun.exe file from within the Windows file manager.

## 2.3    Physical Description

1. **Power Adaptor Connector:** DC IN 5V/2A adaptor
2. **Init Button:** print the configuration page and initialize this Server
3. **Ethernet Connector:** a twisted pair category 5 cable
4. **USB Host Ports:** USB 1.1/2.0 low, full, and Hi-Speed compliant
5. **Indicators**
  - *Power Indicator* is lit while power is applied. If it is not lit, or if it blinks, there is a problem with this Server or power adapter.
  - *Link Status* is lit while network is applied. If it is not lit, it indicates that this server does not connect to the network.
  - *Status Indicator* blinks to indicate network activity.
  - *USB1 Indicator* is lit while a USB device connects to USB1 Port of this Server. If it is not lit, or if it blinks, there is a problem with the USB device or this Server.
  - *USB2 Indicator* is lit while a USB device connects to USB2 Port of this Server. If it is not lit, or if it blinks, there is a problem with the USB device or this Server.

## 2.4    Installation Procedures

### 2.4.1   Installation and Integration

Please refer to the table below to select the appropriate installation method. The Control Center is available on the CD or from JAHT's website.

Function	OS	Method	Description
----------	----	--------	-------------

Print Server	Windows	Standard Windows Add Printer Wizard	Installation of LPR, Raw TCP (JetDirect), Local Port Using SMB, and IPP
		Control Center Tool	Installation of LPR, Raw TCP, Local Port Using SMB
	Apple MAC OS x	Printer Setup Tool	LPR, Raw TCP (JetDirect) SMB, IPP
	Unix/Linux	Edit /etc/printcap File	Using vi or other editors to edit the <i>printcap</i> file
File Server	Windows	None	Don't need installation
	Apple MAC OS X	None	
	Unix/Linux	Samba	Use <i>smbclient</i> in Samba
Scan Server	Windows	The Control Center	Installation of SANE Client and SANE-Twain Driver
	Apple MAC OS X	Download and install SANE	Use terminal
	Unix/Linux	Download and install SANE Frontends	Use SANE Applications such as XSANE

#### 2.4.2 Configuration and Management

This Server can be configured and managed from its internal web pages or from the *Control Center*. These web pages or PC tools offer you a management tool suitable for all supported network environments.

### 2.5 Features and Benefits

This Server provides the following features and benefits:

1. **Reliability:** The Server provides high performance and reliability combined with low power consumption.
2. **Flexibility:** The Server supports print/File/Scan sharing in all major computer systems and environments.
3. **Easy to Install:** The Server installs, operates, and is managed in a reliable and easy fashion.
4. **Security:** You can assign administrator name and password to restrict login.
5. **Monitoring:** The Server's web pages and user software allow you to

continuously monitor the status of connected USB devices.

6. **Future Proof:** The firmware stored in the Server's Flash memory can be upgraded over the network. This allows you to quickly update and enhance its operational features when new Server software becomes available.

# **Chapter 3      Basic Installation**

## **3.1    Connecting the Hardware**

1. Make sure that your USB devices are switched off and that the Server's Power Adapter is disconnected.
2. Connect the USB devices to the USB ports with the USB cables.
3. Connect the Server to the network with a twisted-pair category 5 cable, 10baseT or 100baseTX.
4. Turn on the USB devices and make sure it is ready for use.
5. Connect the Power Adapter to the Server. The power indicator will light up and USB1 and USB2 indicators will flash in turn. When the Link indicator lights up, the Server is correctly connected to the network. When USB1 and USB2 indicators do not flash, the Server starts to work normally.
6. If you connect USB HP printers to the Server, please press the Init button for 3 seconds on the Server once to print a page of Server configuration report.

## **3.2    Assigning an IP Address to the Server**

### **3.2.1    Preliminary**

- If you have a DHCP server on your network, your Server will receive an IP address automatically. The IP address will then appear on the *Control Center* or on the page of configuration report that you printed earlier.
- If you are not working in a DHCP network, please use *Control Center* to manually assign an IP address and other related information
- 

### **3.2.2    Ethernet Address**

You do not need to know the Ethernet address of your Server for assigning an IP address to it. The Control Center can automatically search Servers and list their Ethernet addresses. Besides, you can find Ethernet address that is located on the backside label of the Server.

### **3.2.3    IP Address**

Unless you are assigning an IP address using DHCP, you must obtain an unused IP address from your network administrator.

### **3.2.4    Methods for Setting the IP Address**

You can set the IP address of your Server using one of the following methods, depending on your network operating environment:

- Automatic IP Address Assignment
- Manual IP Address Assignment

### **3.2.5 Host Names and Host Name Rules**

Host Name is used to identify the unit itself, according to your network policy. If you have multiple units in your local area network, you should avoid using the same Host Names. You have to change the Host Names by using the Control Center or the Server's web pages. If your Host Name is longer than 15 characters, the Server uses only the first 15 characters.

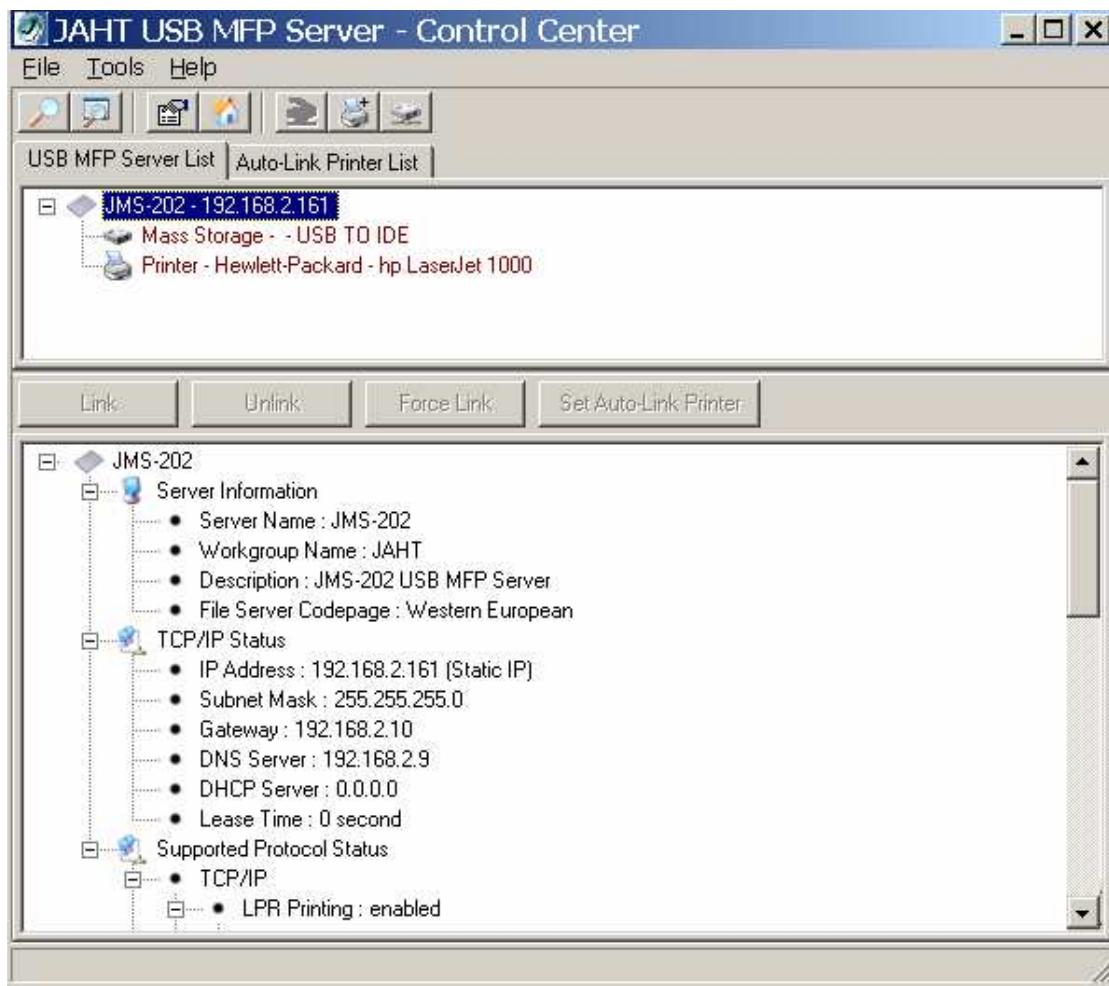
### **3.2.6 Setting the IP Address Using DHCP**

Follow the instructions below to get an IP address using DHCP:

1. Edit or create a scope in the DHCP manager of the DHCP daemon. The entries included in this scope should contain the following parameters:
  - range of IP addresses
  - subnet mask
  - default router IP address
  - DNS server IP address
  - lease duration
2. Activate the scope. The Server automatically gets the DHCP parameters. If you are using DNS, you may include at least one DNS server IP address in the DHCP scope or manually set the DNS server IP address using Server's web pages or the Control Center.

### **3.2.7 Setting the IP Address Using the Control Center**

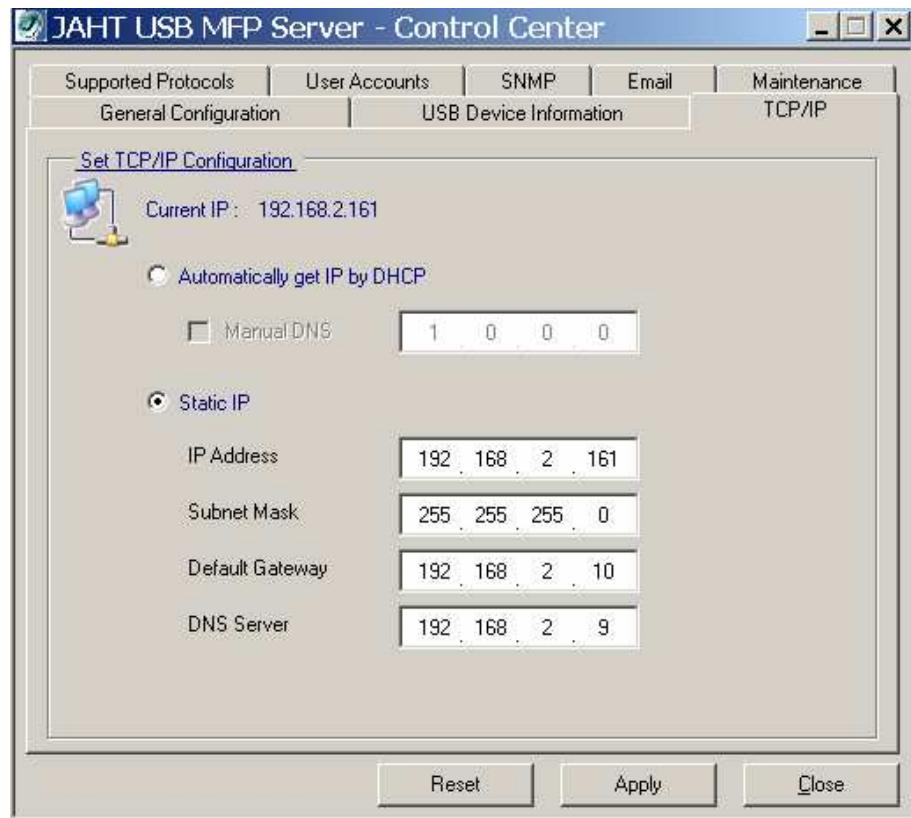
1. Install the Control Center. The Control Center is available on the Product CD.
2. Start the Control Center and Auto-searching Server window will appear.
3. If the tool finds multiple Servers in your local area network, then you have to select one Server from the Server List.



4. Double click the highlight list and enter the Server's administrator (default: *admin*) and password (default: *admin*).



5. After you have logged in successfully, select TCP/IP from the Server's menu. The Set IP Address dialog appears.



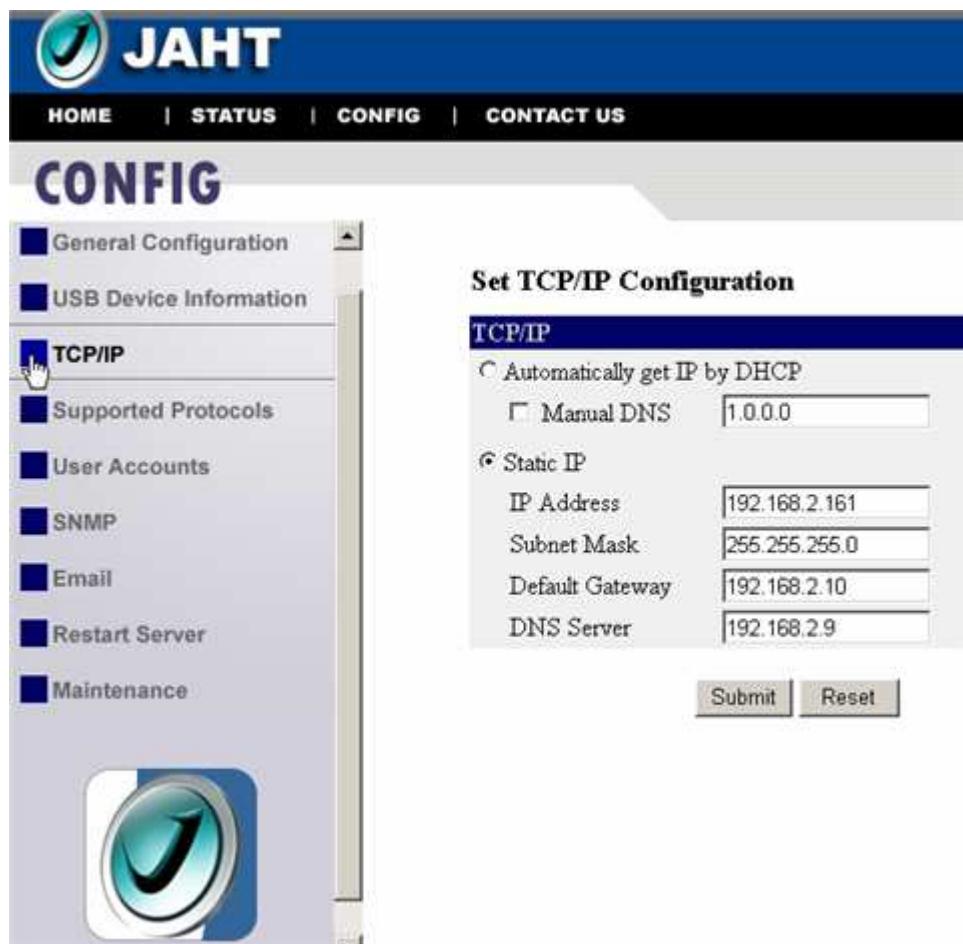
6. Click the button corresponding to your choice of IP setting method (static or dynamic using DHCP). When assigning a static IP address you also have to define Subnet Mask and Default Gateway. If you choose **Automatically get IP by DHCP**, you can use desired DNS by clicking the **Manual DNS** button and manually assigning a DNS. **When a DHCP server is not available, or when you are connecting your computer directly to JMS-202 with a RJ-45 cable, its default IP address is 192.168.1.100, and subnet mask is 255.255.255.0.**
7. Click **Apply** to save your settings. And the Server will reboot.
8. You have now finished the procedure of setting the IP address.

### 3.2.8 Setting the IP Address Using the Server's Web Pages

1. If you don't know the current IP of your Server, you have to do the Step1~Step4 of Set the IP Address Using the Control Center.
2. You can see the IP address of your Server in the Server List. Open IE Browser and enter the Server's IP address or click the Home Icon  of the Control Center.
3. Go to the web page and click **CONFIG** icon.



4. Enter administrator (default: *admin*) and password (default: *admin*).
5. Click **TCP/IP** icon.



6. Click the button corresponding to your choice of IP setting methods (static or dynamic using DHCP). When assigning a static IP address you also have to define Subnet Mask and Default Gateway.
7. Click **Submit** to save your settings. And the Server will reboot. You have now finished the procedure of setting the IP address.

### 3.3 Naming Your USB Devices

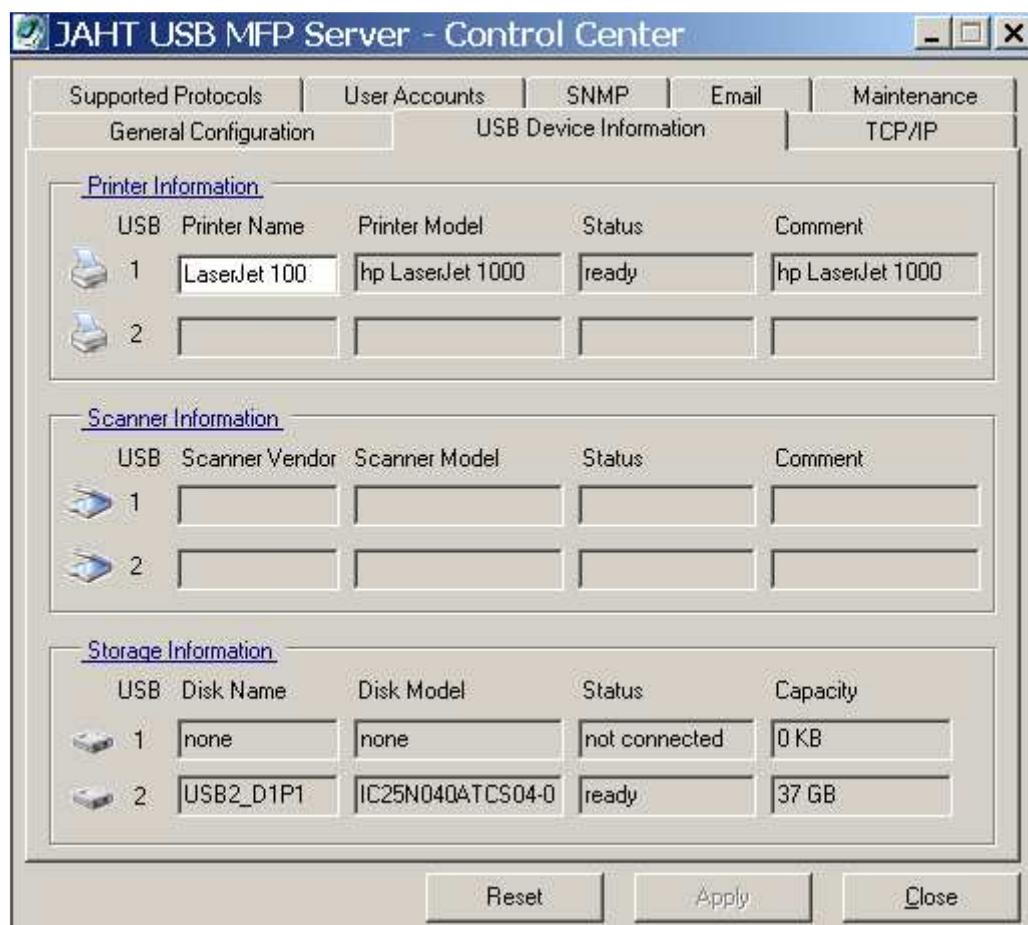
#### 3.3.1 Printer Names

- *Default Printer Name*
  1. The system will set the printer model names as the default printer names. The system only allows a 12-character long USB device name. For example, the printer model name is "LaserJet 4000 PCL 5" and then the default printer name will be set as "LaserJet 400".
  2. If system cannot get the printer model (For example, you use some parallel printers and use Parallel-to-USB cables to connect the printers), the default printer names are set as: *USB1\_Printer* and *USB2\_Printer* with respect to USB1 port and USB2 port.
- *Set Printer Name*

You can set printer names with the Control Center or Server's web pages.

A. Using the Control Center

1. Start the Control Center and Auto-searching Server window will appear.
2. If the tool finds multiple Servers in your local area network, then you have to select one Server from the Server List.
3. Double click the highlight list and enter the Server's administrator (default: *admin*) and password (default: *admin*).
4. After you have logged in successfully, select USB Device Information from the Server menu. The Set USB Device Information dialog appears.



5. Set your printer names in **Printer Name** box and then click **Apply**.

B. Using the Server's Web Pages

1. Go to the web page and click **CONFIG** icon.
2. Enter administrator (default: *admin*) and password (default: *admin*).
3. Click USB Device Information

The screenshot shows the JAHT CONFIG interface. The left sidebar contains a navigation menu with the following items: General Configuration, USB Device Information, TCP/IP, Supported Protocols, User Accounts, SNMP, Email, Restart Server, and Maintenance. Below the menu is a large blue circular logo with a stylized 'J' or 'A' inside.

The main content area is titled "Set USB Device Configuration". It includes three tables:

- Printer Information** table:
 

USB	Name	Model	Status	Comment
1	LaserJet 100	hp LaserJet 1000	ready	
2				
- Scanner Information** table:
 

USB	Vendor	Model	Status	Comment
1				
2				
- Storage Information** table:
 

USB	Name	Model	Status	Capacity
1	none	none	not connected	0
2	USB2_D1P1	IC25N040ATCS04-0	ready	37.19 GB

At the bottom right are two buttons: "Submit" and "Reset".

4. Set your printer names in **Printer Name** box and then click **Apply**.

### 3.3.2 Storage Names

The local drives of the two storages in USB1 port and USB2 port are named as **USBx\_DyPz**, where **USBx** represents the **USBx** port, **Dy** represents the **y-th** Disk (in particular to card reader plugging in multiple cards) and **Pz** represents the **z-th** partition.

## Chapter 4 Print Server in Windows

## 4.1 Overview of Installation Methods

This chapter describes how to add network printers.

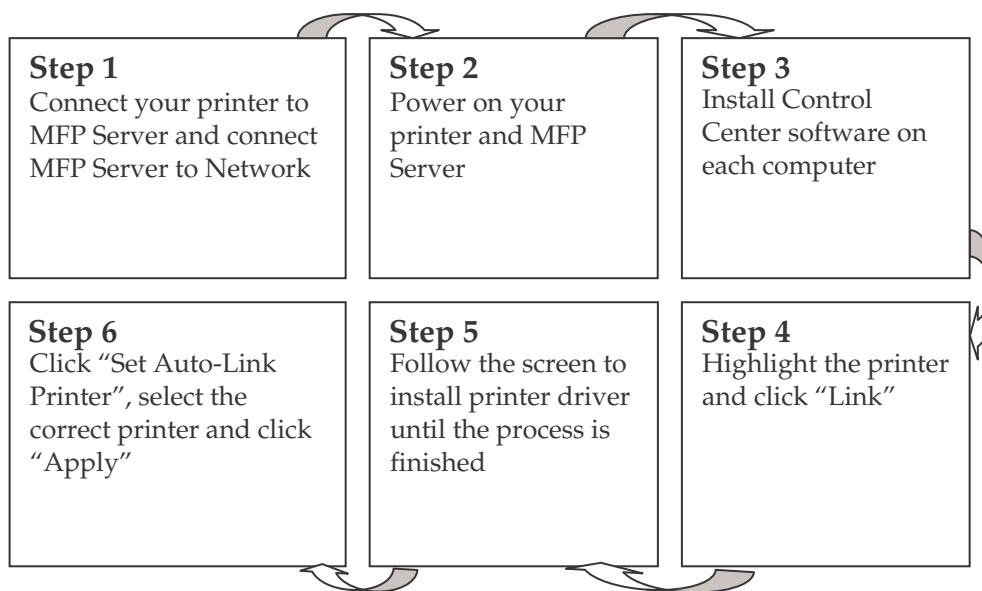
### Table List for Installing Network Printer

Windows Platform	Printing Protocols	Method
Windows 98, ME, 2000, XP and 2003	SMB/CIFS Printing	Standard Windows Add Printer Wizard
		The Control Center's Add Printer
	IPP Printing	Standard Windows Add Printer Wizard
Windows 2000, XP and 2003	LPR Printing	Standard Windows Add Printer Wizard
		The Control Center's Add Printer
	Raw TCP/JetDirect Printing	Standard Windows Add Printer Wizard The Control Center's Add Printer

### Steps for Installing Network Printer

#### Set Up Printers with USB Virtual Printer Port

It is the first method of setting up your printers. If your printers are MFP types, DGI types, host-based, bidirectional, or not network enabled, this is the only method to set up. Even if your printer is network enabled, this method is also recommended for future compatibility and expandability. With this method, every client computer must go through below step 3 to step 6 to use the printer.



**Note:** If you want to install HP all-in-one series printer drivers in Windows, you are advised to connect the MFP to PC during installation.

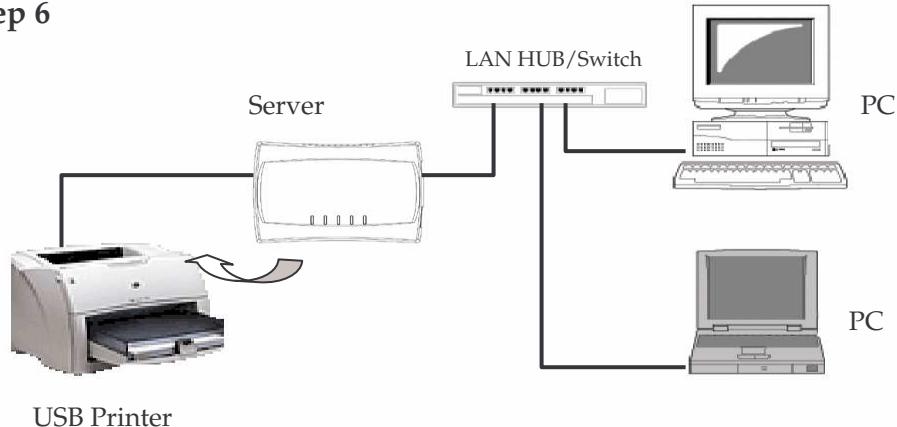
If your printers are network enabled, few more methods of setting up your printers are available, depending on specific network environments and equipment. However, please consider using the first method whenever possible.

## 4.2 Connecting the Server

To configure your Server correctly, you should know which type of network topology that your Server is connecting to.

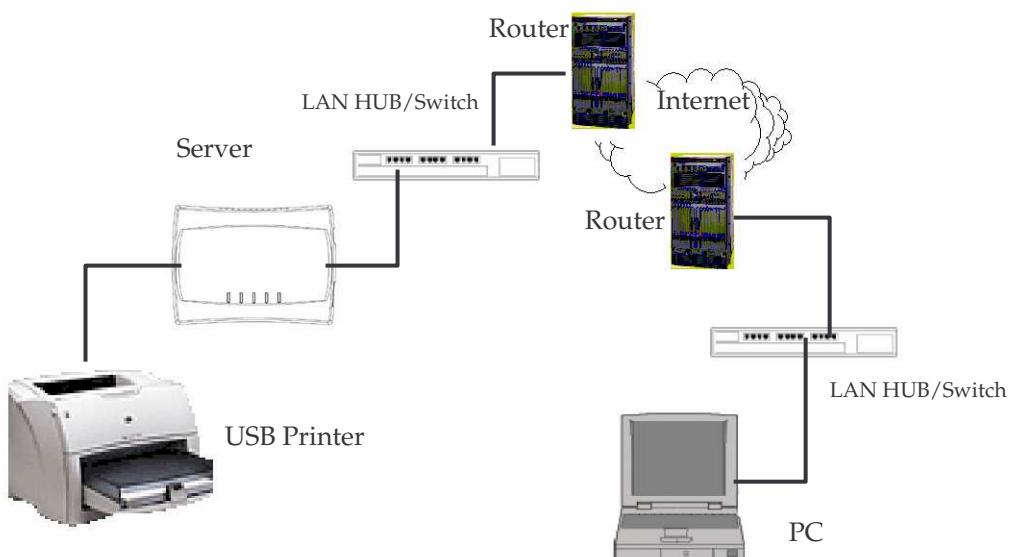
### 4.2.1 The Server and Windows PC on Same LAN

#### Step 6



### 4.2.2 The Server and Windows PC on Different LANs

#### Example: Wired Windows PC across Internet



## 4.3 Setting up Local Windows Printer Driver

You are advised to install your Windows printer driver in advance. For most printers, you can install the printer drivers with the following procedure:

1. Click **Start**, click **Control Panel**, click **Printers and Other Hardware**, and then click **Printers and Faxes**.
2. Double click **Add Printer** to start the Add Printer Wizard, and then click **Next**.
3. Click **Local printer**, clear the **Automatically detect and install my Plug-n-Play printer** check box to avoid having to wait for the completion of another printer search, and then click **Next**. If you leave this option selected, Windows will attempt to find the printer itself and figure out what kind it is. If Windows does not find the printer, the wizard will continue as described in this task.
4. Select a Windows driver for your printer. Click **Next**.
5. Choose whether you want to share the printer with other network users. Do you want to print a test page? Select the appropriate radio button and click **Next** and **Finish**.

## 4.4 Adding Network Printers in Windows

Follow the instructions below to use the standard Windows Add Printer Wizard and the Control Center for adding a network printer in Windows 98 SE, ME, 2000, XP and 2003.

 **Note:**

1. Before adding a network printer, you are advised to install the local Windows printer driver in advance.
2. Before using network printer, you have to turn on "Use Printer Online" in installed network printer driver and then you can use the printer.

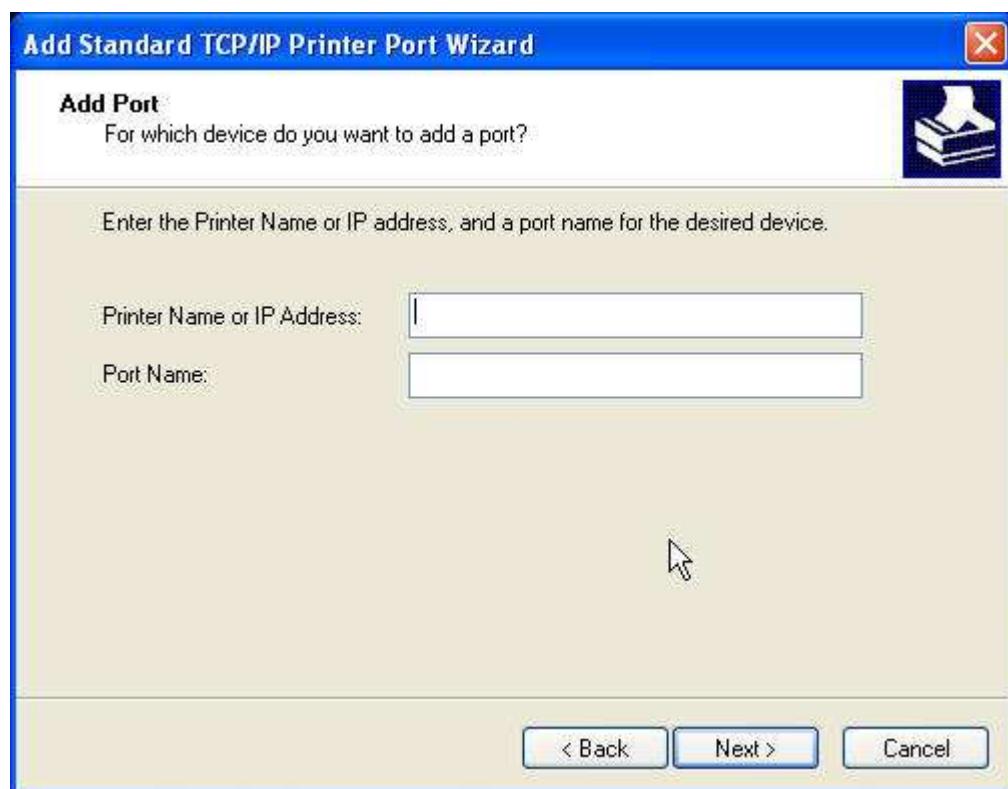
### 4.4.1 Using Standard Windows Methods for LPR Printing Protocol

**Windows Platform:** Windows 2000, XP and 2003

1. Open Printers and Faxes
2. Right-click the printer for which you want to change settings, and then click **Properties/ports**
3. Clear **Enable bidirectional support** and click **Add port**, and then click Standard TCP/IP Port from the dropdown and click **New port**.
4. The "**Add Standard TCP/IP Printer Port Wizard**" will pop up and click **Next**.



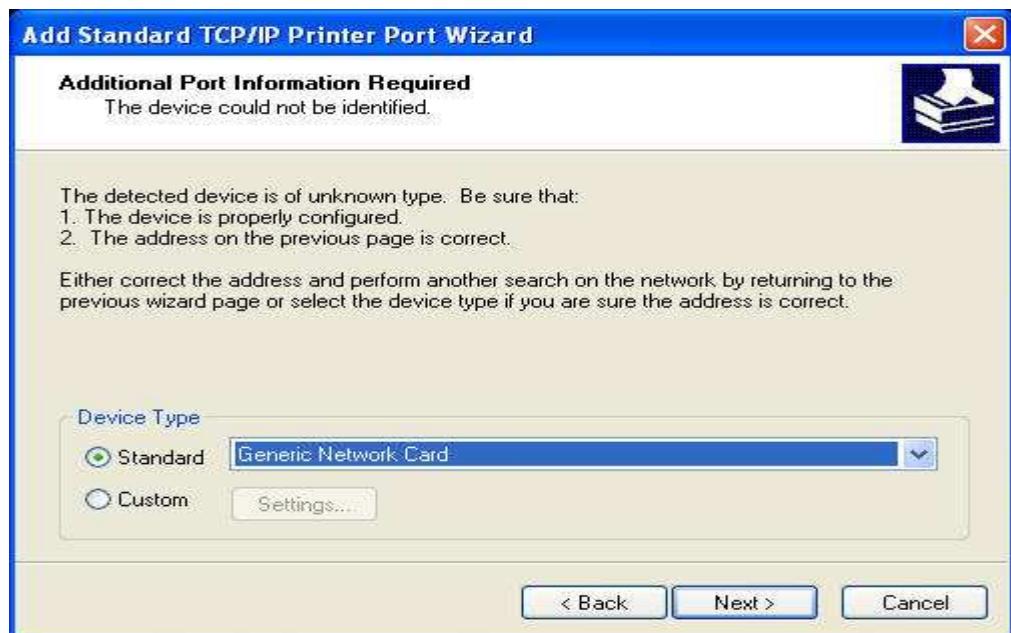
5. In the **Printer Name or IP Address** box, enter the Host Name of the Server (default: JMS-202) or IP address of the Server. In the **Port Name** box, enter your desired names or **USB1\_LPR** or **USB2\_LPR** for printer connected to USB1 port and USB2 port, respectively.



☞ If your Server is running on a different LAN than your Windows PC such as Internet PC, you must enter Server's IP address in **Printer Name or IP Address**

*box.*

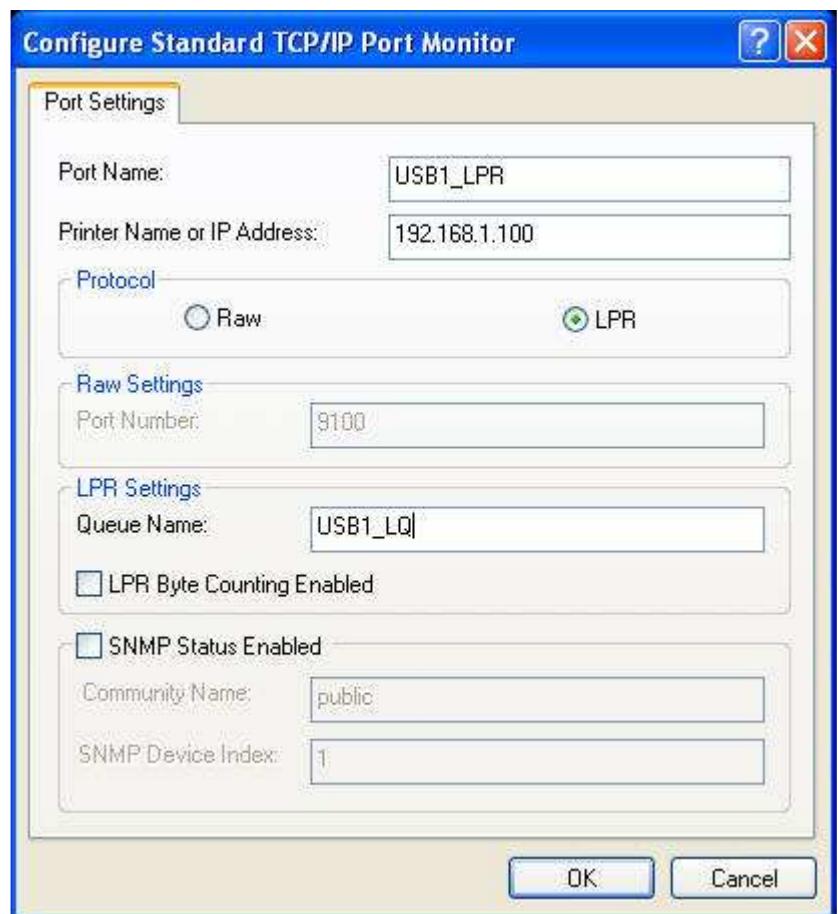
6. Click **Next**.



7. Click **Custom/settings**.



8. Click **Settings** and confirm that the settings are as below. The queue names are **USB1\_LQ**, **USB2\_LQ** for USB1 port 1 and USB2 port, respectively. Click **OK**.



9. Click **Finish**



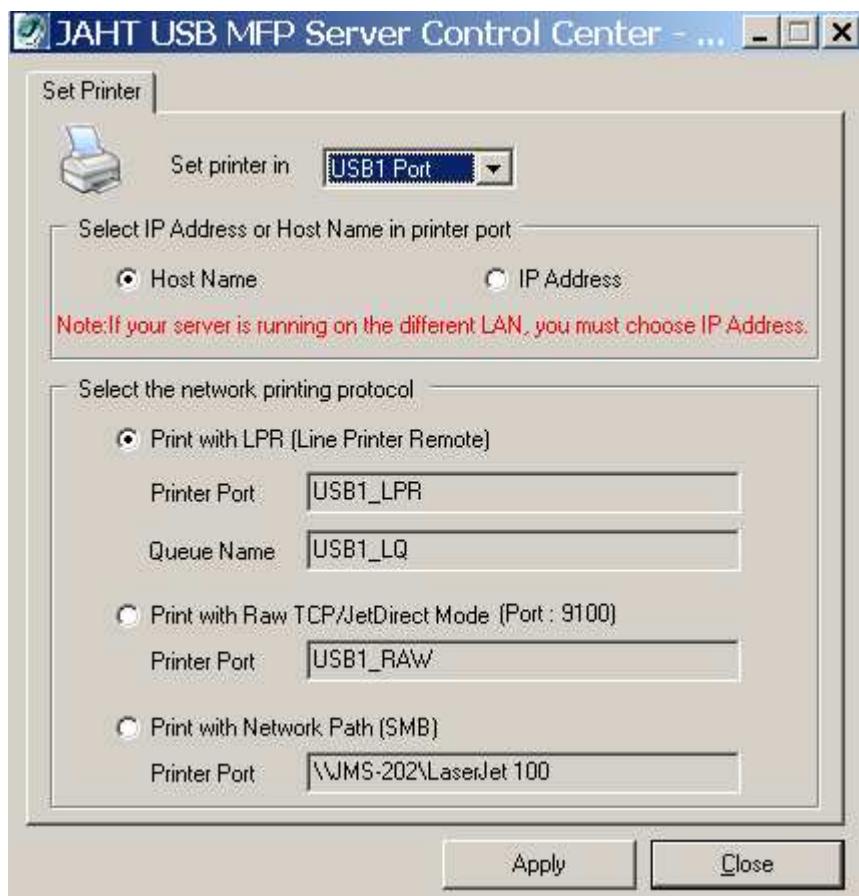
#### 4.4.2 Using the Control Center for LPR Printing

**Windows Platform:** Windows 2000, XP and 2003

1. Start the Control Center, select your Server and click **Set Printer**.



2. Select USB1 Port or USB2 Port to add the printer in **Set printer in** box, choose to use Host Name or IP address to represent the Server in **Select IP address or Host Name in printer port** box, and select the network printing protocol of **Printing with LPR (Line Printer Remote)**.



*If your Server is running on a different LAN than your Windows PC such as Internet PC, you must choose IP address in **Select IP address or Host Name in printer port** box.*

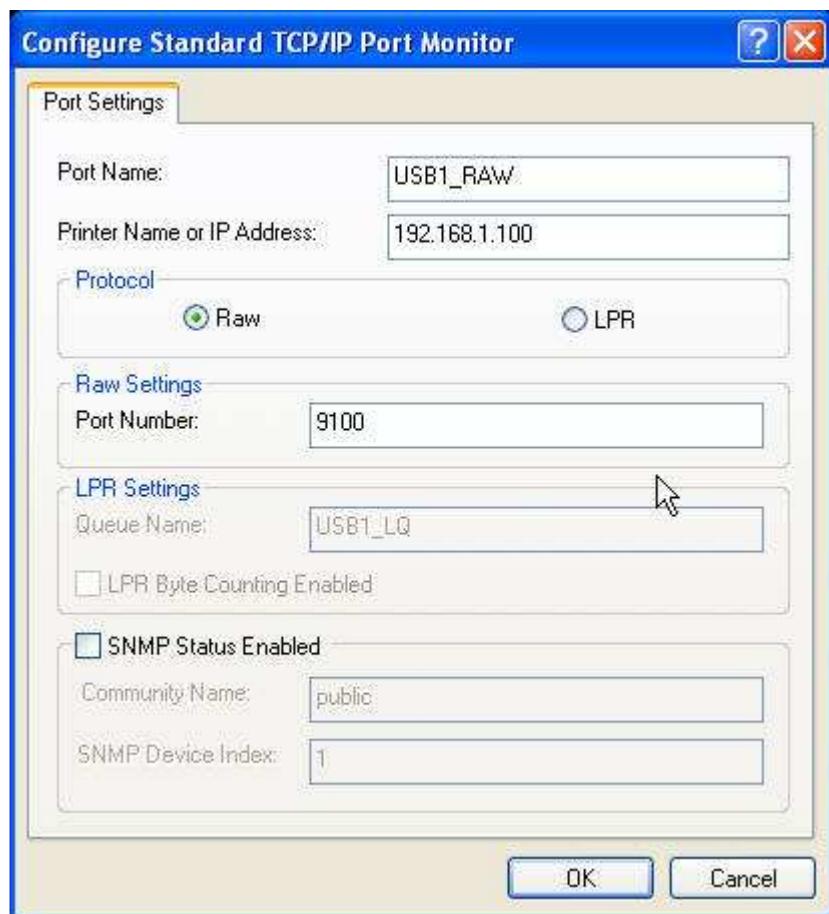
3. Click **Apply**.

4. Select the desired printer driver and click **Set Port to Printer**.
5. If you cannot find any printer driver in Printer List, please install your printer driver first or click **Add New Printer** to install the printer driver.

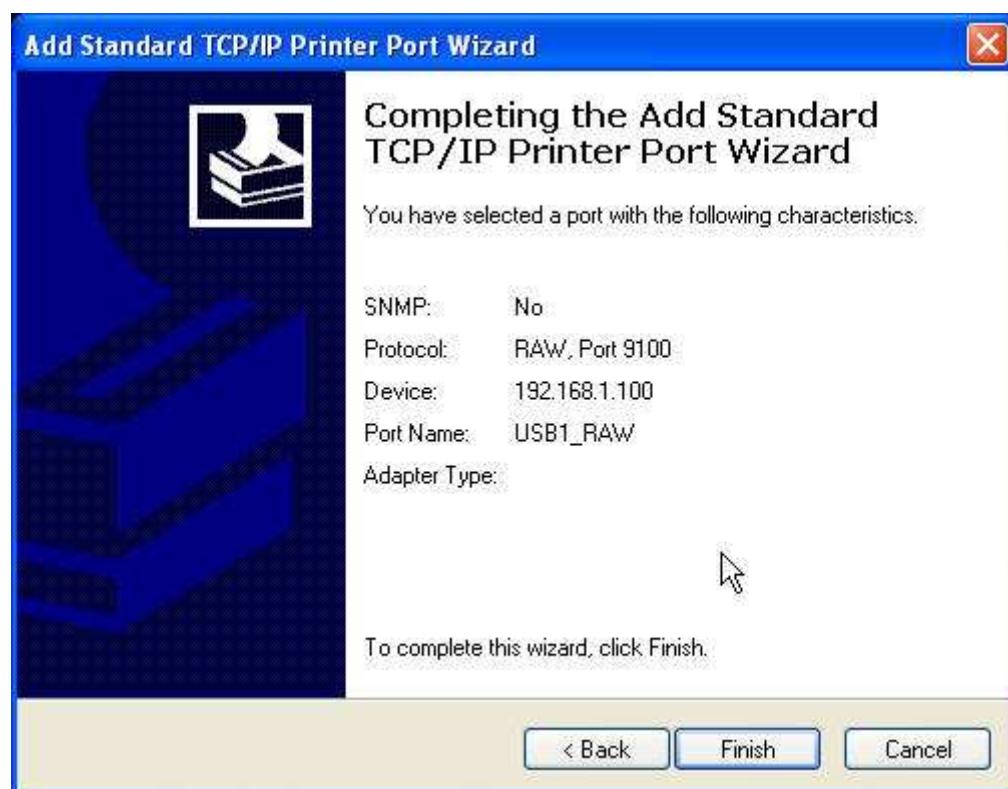
#### 4.4.3 Using Standard Windows Method for Raw TCP Printing

**Windows Platform:** Windows 2000, XP and 2003

1. Open **Printers and Faxes**
2. Right-click the printer for which you want to change settings, and then click **Properties**
3. Clear **Enable bidirectional support** and click **Add port**, and then click Standard TCP/IP Port from the dropdown and click **New port**.
4. The "**Add Standard TCP/IP Printer Port Wizard**" will pop up and click **Next**.
5. In the **Printer Name or IP Address** box, enter the Host Name of the Server (default: JMS-202) or IP address of the Server. In the **Port Name** box, enter **USB1\_RAW** or **USB2\_RAW** for printer connected to USB1 port and USB2 port, respectively.  
*If your Server is running on a different LAN than your Windows PC such Internet PC, you must enter the Server's IP address in **Printer Name or IP Address** box.*
6. Click **Next**.
7. Click **Custom/settings**.
8. The click Settings and confirm that the settings are as below. The default Port Number values are 9100, 9101 for USB port 1 and USB port 2, respectively. Refer to the Server's web pages or the Control Center, you can get exact values. Click **OK**.



9. Click **Finish**.



#### 4.4.4 Using the Control Center for Raw TCP/JetDirect Printing

**Windows Platform:** Windows 2000, XP and 2003

1. Start the Control Center, select your Server and click **Set Printer**.



2. Select USB1 Port or USB2 Port to add the printer in **Set printer in** box, choose to use or IP address to represent the Server in **Select IP Address or Host Name in printer port** box, and select the network printing protocol of **Print with Raw TCP Mode**.



☞ If your Server is running on a different LAN than your Windows PC such as Internet PC, you must choose IP address in **Select IP Address or Host Name in printer port** box.

3. Click **Apply**.

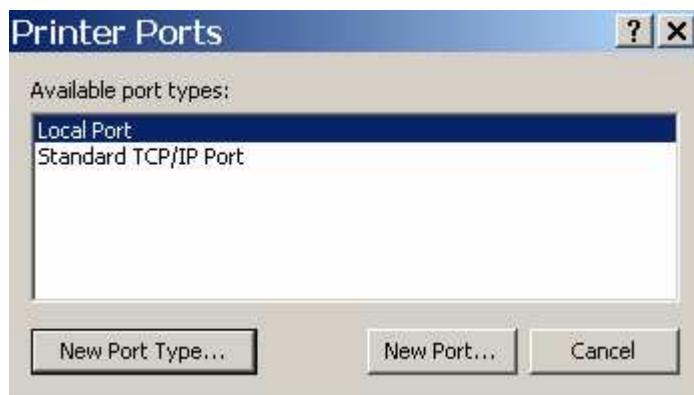
4. Select the desired printer driver and click **Set Port to Printer**.
5. If you cannot find any printer driver in Printer List, please install your printer driver first or click **Add New Printer** to install the printer driver.

#### 4.4.5 Using Standard Windows Methods for SMB/CIFS Printing

- ☞ Before using SMB/CIFS printing, you have to login the SMB/CIF Print/File server in advance and then you may use it; otherwise you have to disable SMB/CIFS Print/File Server Authentication.
- ☞ If you use SMB on Windows 98 SE/ME with Server Authentication, you must login to your Windows 98 SE/ME using the same user name as in the Server's User Account.

**Windows Platform:** Windows 98SE, ME, 2000, XP and 2003

1. Open **Printers and Faxes**
2. Right-click the printer for which you want to change settings, and then click **Properties**.
3. Click the **Ports** tab.
4. Clear **Enable bidirectional support** and click **add port**, and click **Local Port**, and then click **New Port...** in the **Printer Ports** box.



5. In the **Port Name** box, enter the path to the printer with the following format: "\\\Server's Host Name\printer name" or "\\\Server's IP address\printer name" (Please refer to the Server's web pages or the Control Center to know exact path). For example: if you set the Server's Host Name as "JMS-202" and printer name (USB1 port) as hp4000, then the network path is expressed as: \\JMS-202\hp4000



- ☞ ☐ If your Server is running on a different LAN than your windows PC such as Internet PC, you must enter IP address in **Port Name** box.

6. Click OK, and then select a Windows driver for your printer. If you already have the printer's driver installed, you will be asked whether to keep it or to replace it. Click **Next**.
7. Choose whether you want to share the printer with other network users. Do you want to print a test page? Select the appropriate radio button and click **Next** and **Finish**.

#### 4.4.6 Using the Control Center for SMB/CIFS Printing

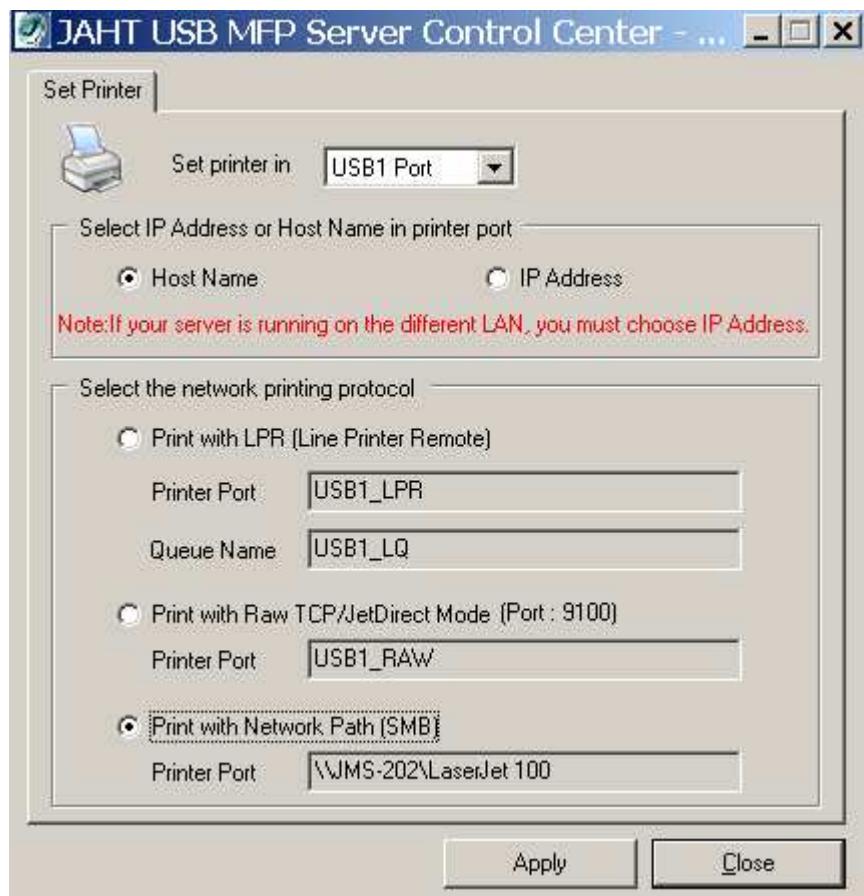
- ☞ Before using SMB/CIFS printing, you have to login the SMB/CIF Print/File server in advance and then you may use it; otherwise you have to disable SMB/CIFS Print/File Server authentication.
- ☞ If you use SMB on Windows 98 SE/ME with Server Authentication, you must login to your Windows 98 SE/ME using the same user name as in the Server's User Account.

**Windows Platform:** Windows 98, ME, 2000, XP and 2003

1. Start the Control Center, select your Server and click **Set Printer**.



2. Select USB1 Port or USB2 Port to add the printer in **Set printer in** box, choose to use Host Name or IP address to represent the Server in **Select IP Address or Host Name in printer port** box, and select the network printing protocol of **Printing with Network Path (SMB)**.



☞ If your Server is running on a different LAN than your Windows PC such as Internet PC, you must choose IP address in **Select IP address or Host Name in printer port** box.

3. Click **Apply**.
4. Select the desired printer driver and click **Set Port to Printer**.
5. If you cannot find any printer driver in Printer List, please install your printer driver first or click **Add New Printer** to install the printer driver.

#### 4.4.7 Using Standard Windows Method for IPP Printing

**Windows Platform:** Windows 98 SE, ME, 2000, XP and 2003

1. Click Start, click **Control Panel**, click Printers and Other Hardware, and then click Printers and Faxes.
2. Double click Add Printer to start the Add Printer Wizard, and then click **Next**.
3. In this window, select **A network printer, or a printer attached to another computer** and click **Next**.



- Click the **Next** button. On the next window, select Connect to a printer on the Internet or on a home or office network. In the URL: field, enter the following to connect to the Server: *http://Server's Host Name /printer name* or *http://Server's IP address /printer name*  
For example, *http://JMS-202/LaserJet 100*  
☞  If your Server is running on a different LAN than your windows PC such as Internet PC, you must enter IP address in **URL: Field**.



5. Click **Next** and then continue Windows Add Printer Wizard.

## Chapter 5 Print Server in Unix/Linux

This chapter describes how to add network printers to Unix/Linux PC.

### 5.1 Configuring Host File

If using IP administration system like DNS, manually registering the Host Name and IP address may be not required. Otherwise, you have to edit hosts file and contact your network administrator.

1. Log in to Linux machine by "root".

```
# login root
```

2. Register the Server's Host Name and IP address into /etc/hosts file.

*To edit host file, use an editor, e.g. "vi".*

**Example:** The IP address is "192.168.1.100", Host Name is "JMS-202"

```
192.168.1.1 dns # DNS Server
```

```
192.168.1.2 mail # Mail Server
```

```
192.168.1.100 JMS-202 # Server
```

3. Switch on the Server. Verify the network connection by using the ping command.

```
# ping JMS-202
```

If there is no response or error occurs, there may be problems with IP address configuration, host file editing or network status. Please contact your network administrator.

## 5.2 Printing by LPD/LPR

This section explains how to print using LPD protocol of TCP/IP.

For further information on "lpr" and "lp" commands, refer to your workstation manual.

**LPD Protocol:** LPD (Line Printer Daemon) is a protocol that enables you to execute printing to a printer on the network.

**Remote-Printer Queue:** The Server has two remote printer queues: USB1\_LQ and USB2\_LQ with respect to USB port 1 and UB port2.

To print files using a printer driver, use "lp" or "lpr".

## 5.3 Using the Server on BSD UNIX/Linux

1. Log in to the BSD Unix machine through "root".

```
# login root
```

2. Register the Server into /etc/printcap file.

Example: To register the printer of USB1 port by the printer name "Printer1".

Printer1:\ ---(A)

```
:lp=:rm=JMS-202:rp=USB1_LQ:\ ---(B)  
:sd=/var/spool/lpd/Printer1:\ ---(C)  
:lf=/var/spool/lpd/Printer1/Printer1_errs: ---(D)
```

where

(A) Describes the printer name.

(B) lp: Device file name to connect printer. No name designation required on the network.

rm: Host Name for the remote printer. Enter the Host Name registered to /etc/hosts file.

rp: Remote printer name. Please input the remote printer queue name.

(C) sd: Spool directory name. It must be the absolute path.

(D) lf: Error log file name. It must be the absolute path.

3. Create the spool directory and error log file registered to /etc/printcap file.

Example: To create the spool directory "Printer1" and error log file

"Printer1\_errs".

```
# mkdir /var/spool/lpd/Printer1 Create the spool directory
```

```
# touch /var/spool/lpd/Printer1/Printer1_errs Create the error log file
```

```
# chown -R daemon /var/spool/lpd/Printer1 Change the owner to daemon
```

```
# chgrp -R daemon /var/spool/lpd/Printer1 Change the group to daemon
```

4. Start Printing.

- A. Use the "lp" command.

- `# lp -d Printer1 <Print file name>`
- `# lp -d Printer2 <Print file name>`

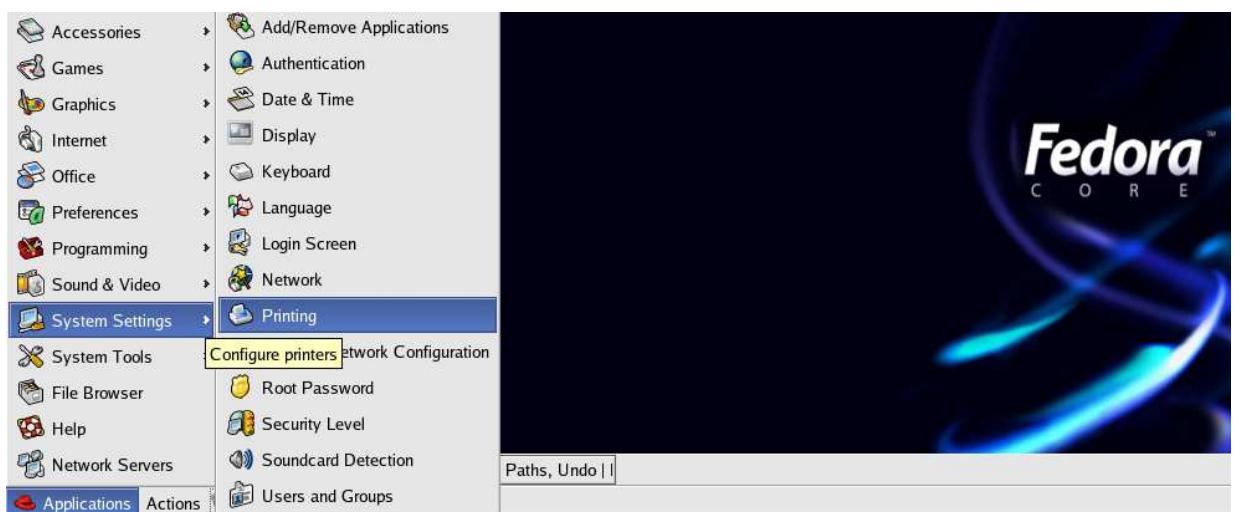
B. Use the “lpr” command.

- `# lpr -P Printer1 <print file name>`
- `# lpr -P Printer2 <Print file name>`

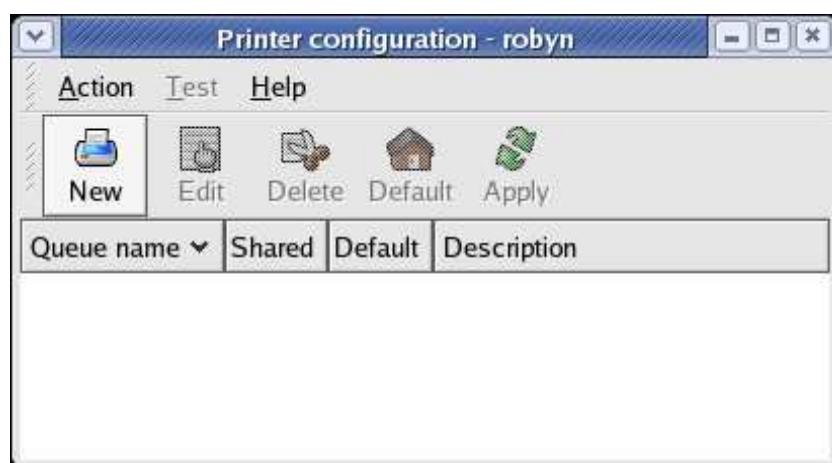
## 5.4 Using the Server on RedHat Linux (Fedora Core)

In the RedHat (Fedora Core) x-window user interface, follow these steps:

1. To start the application, select **Main Menu** button (on the Panel)->**Applications->System Settings -> Printing**.



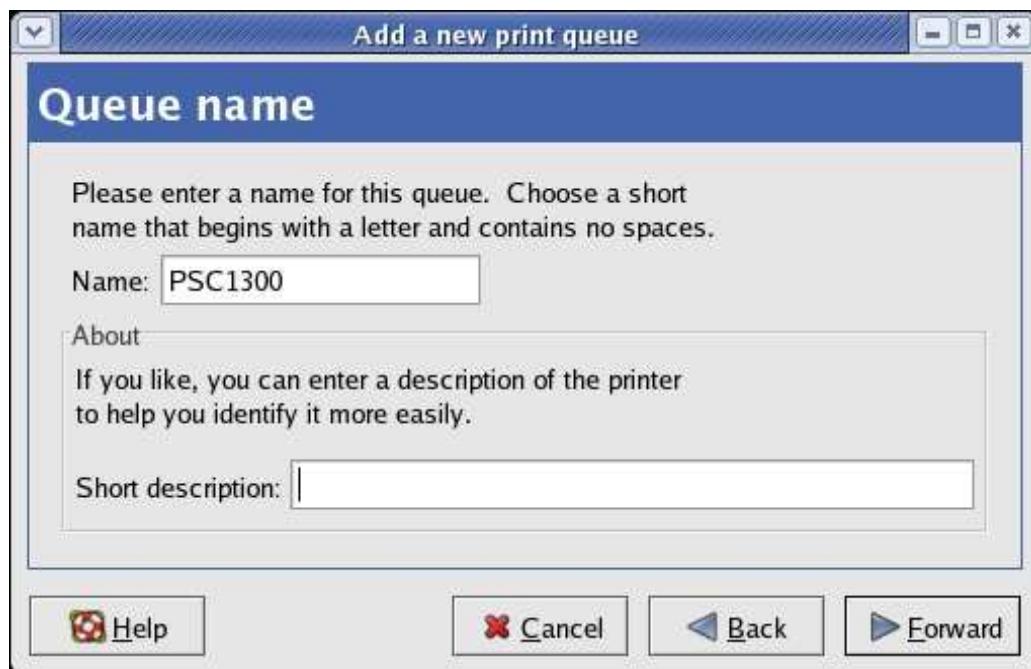
2. Click on the **New** button in the **Printer configuration** window.



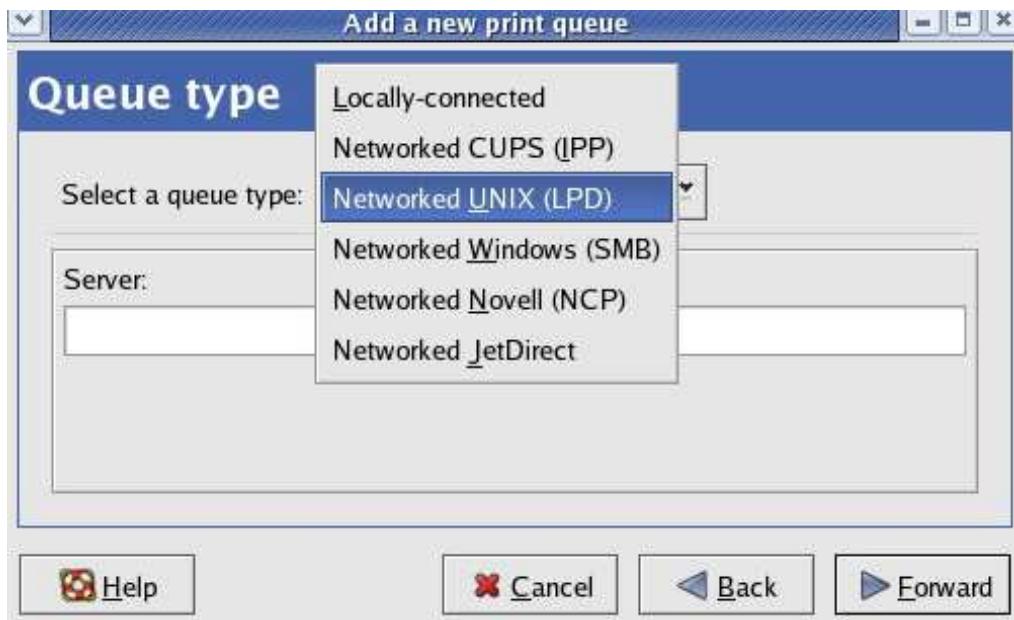
3. Click on the **Forward** button in the **Add a new print queue** window.



4. Fill in your desired printer name and description (optional) in **Queue name** window and then click on the **Forward** button.

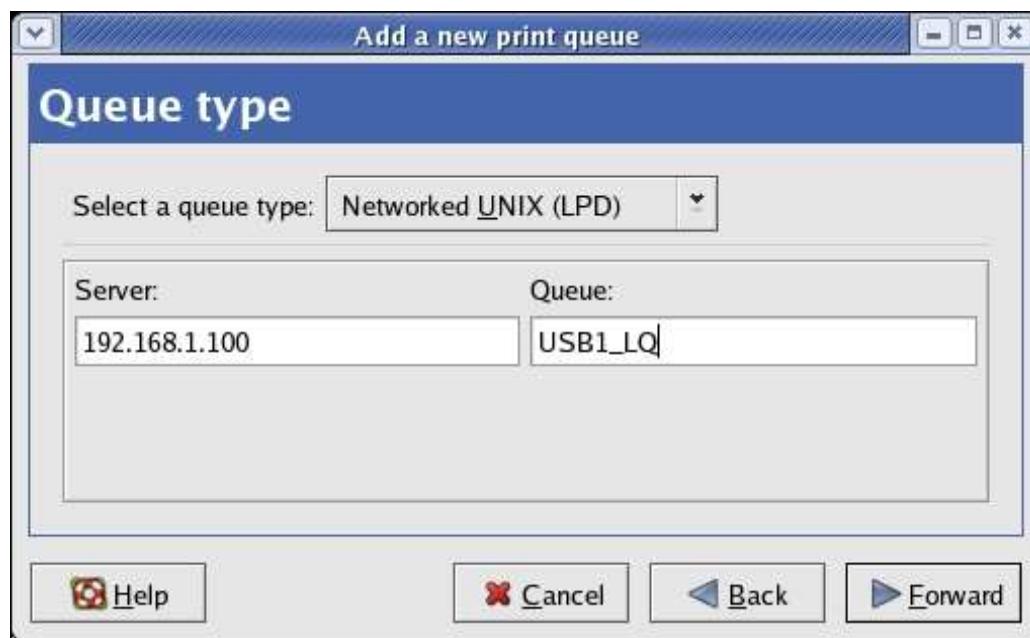


5. In **Queue type** window, you will now be asked to specify which Printer Queue type you are using, select the one option from **Networked Unix (LPD)**, **Networked CUPS (IPP)**, **Networked Windows (SMB)** and **Networked JetDirect** options. Click on the **Forward** button.

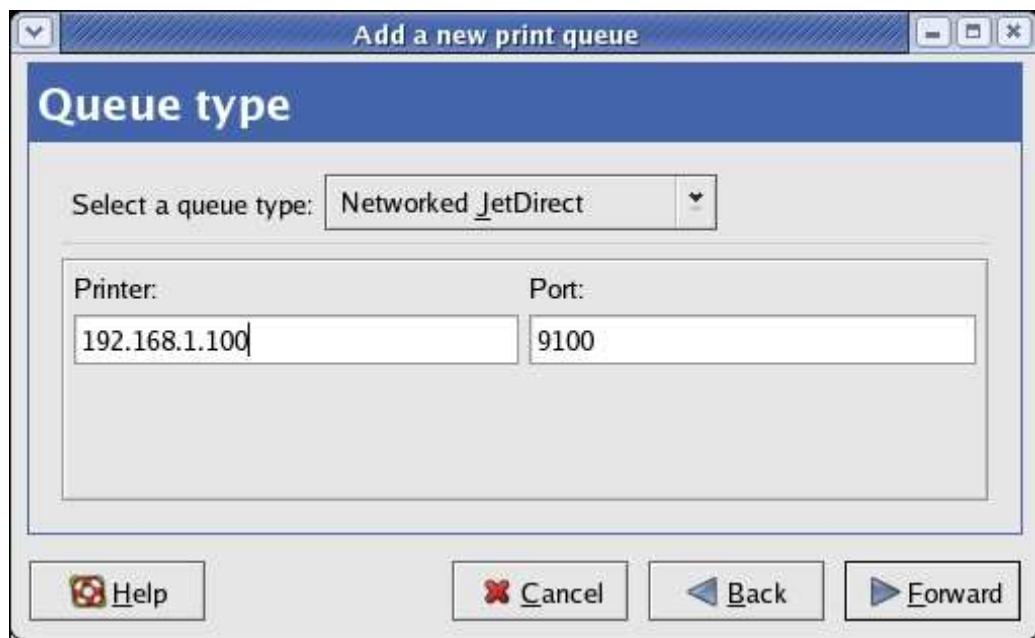


6. Fill in parameters for **Queue type** window:

A. **Networked Unix (LPD)**: Fill in the Server's IP address and queue name and then click the **Forward** button. *Example:* If your Server's IP address is 192.168.1.100 and it connects to HP PSC 1300 MFP via USB1 port. You can enter IP address in the Server box as 192.168.1.100 and Queue name in Queue box as USB1\_LQ.

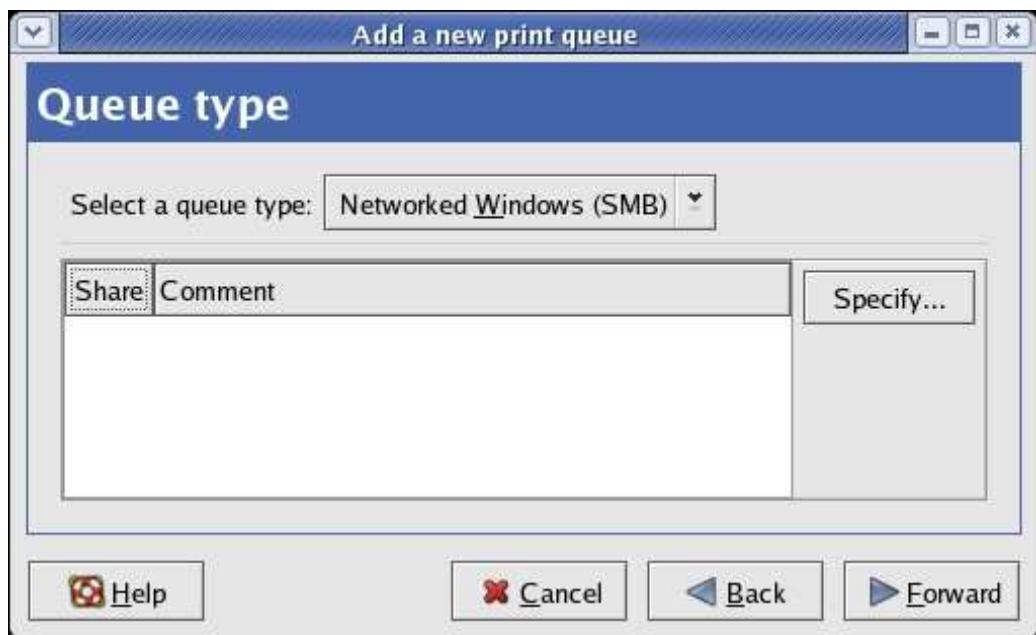


B. **Networked JetDirect**: Fill in the Server's IP address and protocol's TCP port and then click the **Forward** button. *Example:* If your Server's IP address is 192.168.1.100 and it connects HP PSC 1300 MFP via USB1 port. You can enter IP address in the Server box as 192.168.1.100 and TCP Port in **Port** box as 9100.



C. **Networked Windows (SMB):**

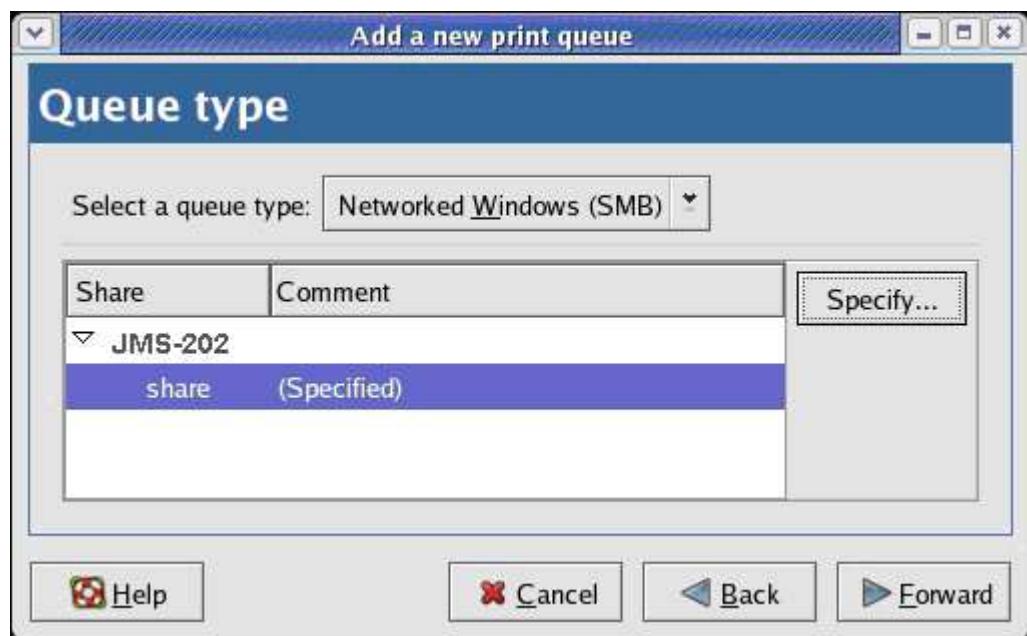
- i. Click on the **Specify** button to specify SMB server Authentication.



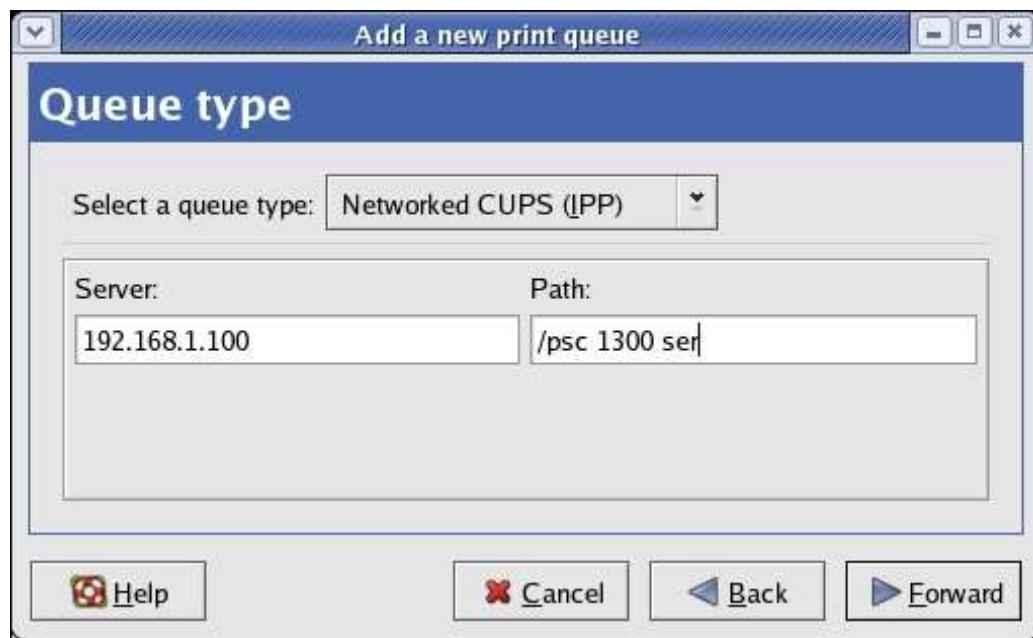
- ii. Fill in the Workgroup, Host Name, User name and Password in **Authentication** window and then click on the **OK** button.



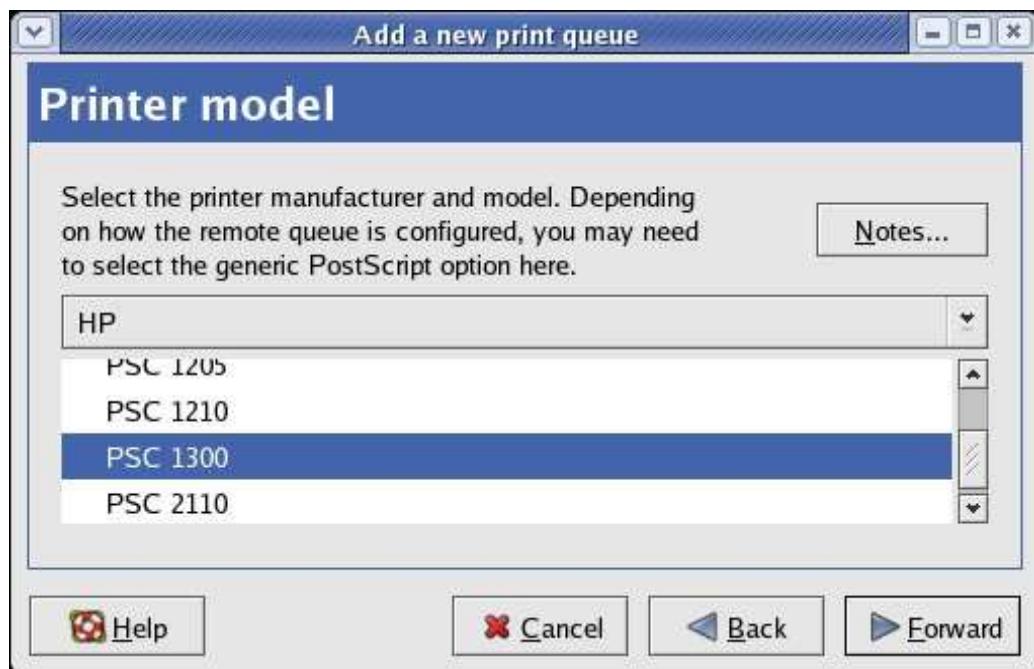
iii. Click on the **Forward** button.



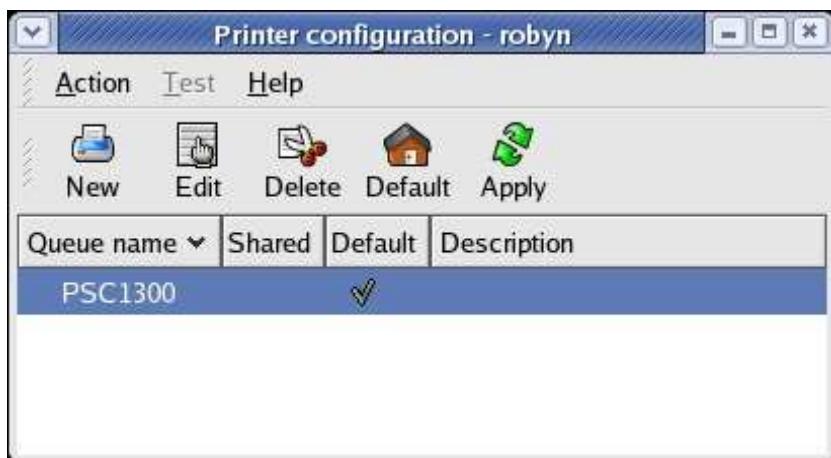
D. **Networked CUPS (IPP):** Fill in the Server's IP address and printer name then click the **Forward** button. *Example:* If your Server's IP address is 192.168.1.100 and its printer name is **psc 1300 ser**. You can enter IP address in **Server** box as 192.168.1.100 and printer name in **Path** box as **psc 1300 ser**.



7. Select your printer driver. Click on the **Forward** button. Windows will display the **Finish, and create the new print queue** folder.



8. Click **Finish** button.



## Chapter 6      File Server

This chapter describes the file server function of the Server which allows USB storage devices to be shared across a network by using SMB: NetBIOS over TCP/IP and FTP protocol.

### 6.1    Preliminary

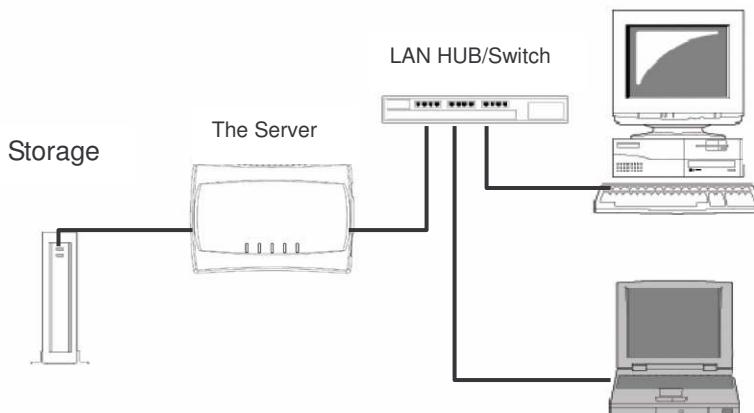
1. This product supports a file format of FAT12/16/32 and NTFS. However, NTFS is only supported in NetUSB mode. Please refer to the Storage Access Mode.
2. JAHT is not responsible for the loss or corruption of data in memory devices, including hard disk; JAHT is not responsible for the leak, manipulation, loss, or corruption of data in memory devices connected to the Server after unauthorized access.
3. In order to use the USB Mass Storage device connected to the Server, the SMB protocol or FTP protocol must be set up.

4. This product does not support to magnet optical drive devices such as CD/DVD.
5. This product allows shared two USB storage devices over the network in Windows through the USB ports.
6. This product does not support the USB devices through USB hub.

## 6.2 Storage Names

The local drives of the two storages in USB1 port and USB2 port are named as `USBx_DxPx`, where `USBx` represents the `USBx` port, `Dx` represents the the `x-th` Disk and `Px` represents the `x-th` partition.

## 6.3 Connecting USB Mass Storage to the Server



## 6.4 Supported Codepages

- **What is codepage?**

Used by the system to encode and interpret string characters. Codepage formats are not the same for each language. Some languages, such as Japanese have multibyte characters, while others, such as English and German, need only one byte to represent each character.

- **Filename Encoding of FAT File System**

This is known as an **8.3** file name, a short file name using codepage encoding. The FAT file system also supports file names that can be up to 255 characters long. This is known as a long file name using Unicode (UTF-16) encoding.

- **When do you need to configure codepage?**

The Server supports Windows codepages. If users want to communicate files using FTP client tool or SMB on Windows 98/Me/2000 with the Server, they have to set their Server codepage to be same as the codepage that their Windows PC is using.

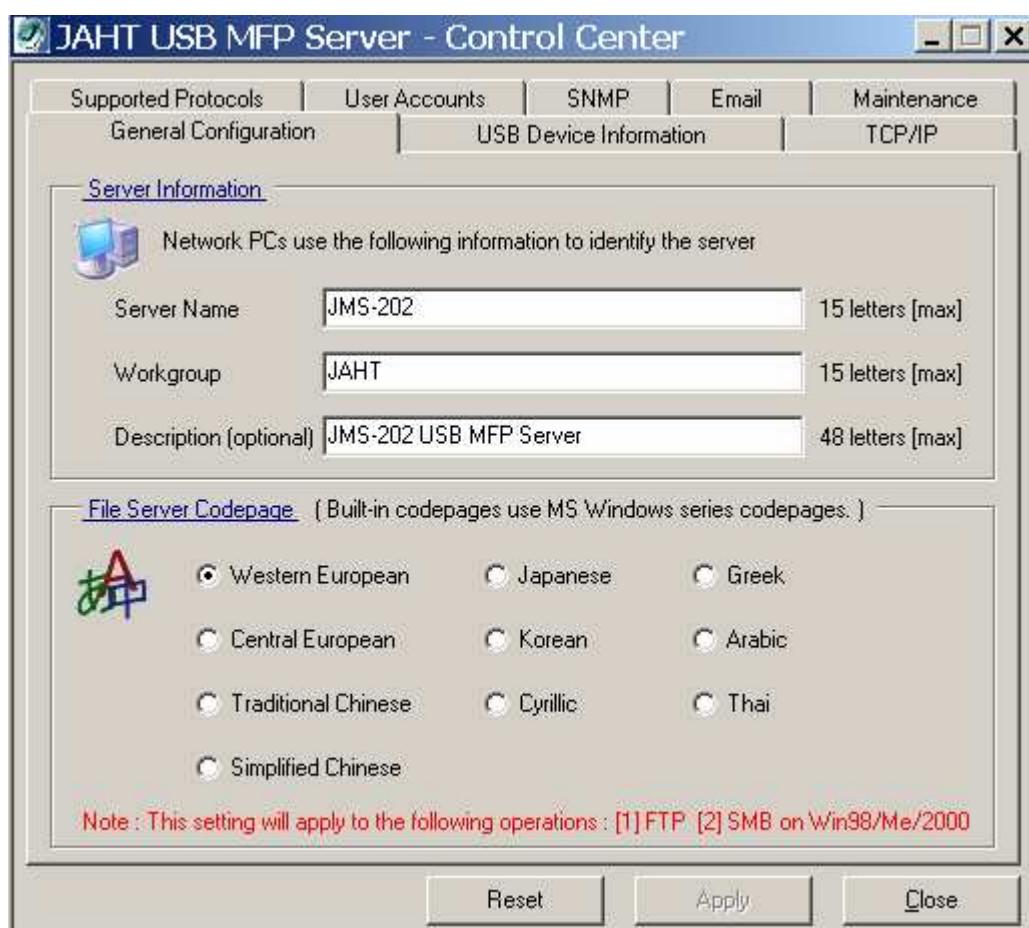
1. FTP
2. SMB on Windows 98/Me/2000

### - Configuring the Server's Codepages

Users can use the following methods to set the Server's codepage.

#### A. Using Control Center

1. Start Control Center and Auto-searching Server window will appear.
2. If the tool finds the Servers in your local area network, then you have to select one Server from the Server List.
3. Double click the highlight list and enter the Server's administrator (default: *admin*) and password (default: *admin*).
4. After you have logged in successfully, setting **General Configuration** dialog appears.



5. Select your codepage form **File Server Codepage** box and click **Apply**.
- B. Using Server's Web Pages

1. Go to the web page, click **CONFIG**
2. Login your administrator (default: *admin*) and password (default: *admin*).
3. After you have logged in successfully, setting **General Configuration** dialog appears.

**File Server Code Page**

Western European  
 Central European  
 Traditional Chinese  
 Simplified Chinese  
 Japanese  
 Korean  
 Cyrillic  
 Greek  
 Arabic  
 Thai

\* Built-in codepages use MS Windows series codepages.  
 \* This setting will apply to the following operations :  
 1. FTP (File Transfer Protocol)  
 2. SMB on Windows98/ME/2000

4. Select your codepage from **File Server Codepage** box and click **Apply**.

## 6.5 Adding Your USB Mass Storages to Network with Security

You can use the following protocols to share your USB Mass Storages with user level security in network:

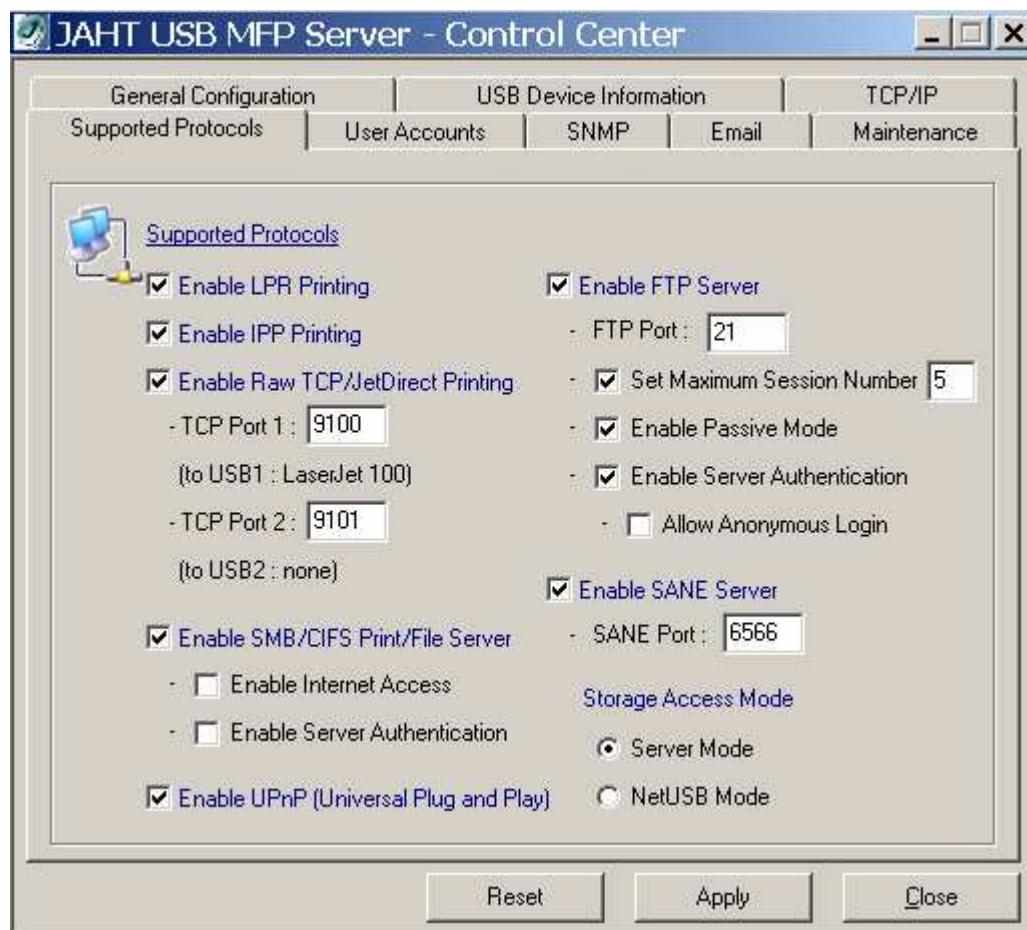
- SMB/CIFS: NetBIOS over TCP/IP
- FTP

The protocols are shown in **Supported Protocols** box of the Control Center or the Server's web pages.

### 6.5.1 Setting up File Server Using the Control Center

1. Start the Control Center and Auto-searching Server window will appear.
2. If the tool finds multiple Servers in your local area network, then you have to select one Server from the Server List.

3. Double click the highlight list and enter the Server's administrator (default: *admin*) and password (default: *admin*).
4. After you have logged in successfully, click **Supported Protocols**.



5. Set up File Server Configuration:

- A. Set SMB/CIFS Print/File Server

- **Enable SMB/CIFS Print/File Server:** select the item, if you want to support SMB/CIFS print/File server.
- **Enable Internet Access:** clear the item, if you do not allow that users can access your SMB/CIFS server via Internet. If you select the item, you allow Internet users can access your storage using the SMB/CIFS protocol.
- **Enable Server Authentication:** select the item, if you want to share your storage with user level security which requires user name and password to login. If you clear the item, your storage will be shared without security.

- B. Set FTP Server:

- **Enable FTP Server:** select the item, if you want to support FTP server.
- **FTP port:** enter the desired FTP port. The default value is 21.
- **Maximum Session Number:** select the item and fill in desired number.
- **Enable Passive Mode:** select the item, if you want to allow that your FTP server can accept passive mode command.
- **Enable Server Authentication:** select the item, if you want to share your storage with user level security which requires user name and password to login. If you clear the item, your storage will be shared without security.
- **Allow Anonymous Login:** select the item, if you want to allow the user “anonymous” to login your FTP server with read-only permission and the Server will not check the password. If you clear the item, your FTP server will not support anonymous login function.

c. Storage Access Mode: To use FTP and SMB/CIFS to access storage, please set the storage access mode to the server mode. For the NetUSB mode, please refer to chapter 9.

### 6.5.2 Setting up File Server Using Web Pages

1. Go to the web page, click **CONFIG**
2. Login your administrator (default: *admin*) and password (default: *admin*).
3. After you have logged in successfully, click **Supported Protocols**.

## Set Supported Protocols

**TCP/IP**

Enable LPR Printing

Enable IPP Printing

Enable Raw TCP/JetDirect Printing

- TCP Port  (to USB1 )  
- TCP Port  (to USB2 )

Enable SMB/CIFS Print/File Server

-  Enable Internet Access  
-  Enable Server Authentication

Enable FTP Server

- FTP Port   
-  Set Maximum Session Number   
-  Enable Passive Mode  
-  Enable Server Authentication  
-  Allow Anonymous Login

Enable SANE Server

- SANE Port

Enable UPnP (Universal Plug and Play)

**Storage Access Mode**

Server Mode     NetUSB Mode

**Submit** **Reset**

### 4. Set up File Server Configuration:

#### A. Set SMB/CIFS Print/File Server

- **Enable SMB/CIFS Print/File Server:** select the item, if you want to support SMB/CIFS print/File server.
- **Enable Internet Access:** clear the item, if you do not allow that users can access your SMB/CIFS server via Internet. If you select the item, you allow Internet users can access your storage using the SMB/CIFS protocol.
- **Enable Server Authentication:** select the item, if you want to share your storage or printer with user level security which requires user name and password to login. If you clear the item, your storage will be shared without security.

#### B. Set FTP Server:

- **Enable FTP Server:** select the item, if you want to support FTP server.
- **FTP port:** enter the desired FTP port. The default value is 21.
- **Maximum Session Number:** select the item and fill in desired number.
- **Enable Passive Mode:** select the item, if you want to allow that your

FTP server can accept passive mode command.

- **Enable Server Authentication:** select the item, if you want to share your storage with user level security which requires user name and password to login. If you clear the item, your storage will be shared without security.
- **Allow Anonymous Login:** select the item, if you want to allow the user "anonymous" to login your FTP server with read-only permission and the Server will not check the password. If you clear the item, your FTP server will not support anonymous login function.

C. Storage Access Mode: To use FTP and SMB/CIFS to access storage, please set the storage access mode to the server mode. For the NetUSB mode, please refer to chapter 9.

### 6.5.3 Using Shared Storages by SMB/CIFS Method for Windows

1. Connect a USB storage device to this product.
2. Select **My Network Places**
3. Click **Display the Computers of Workgroup**
4. Double click **Microsoft Windows Network** icon.
5. Double click the **Workgroup** that the Server belongs to. The default Workgroup name is "WORKGROUP". You can refer to Control Center or the Server's web pages to get it. You will see that the Server will be displayed as the default Host Name "JMS-202" or the Host Name that you have set.
6. If you cannot find Workgroup name of the Server in Microsoft Windows Network, you can select **Search for Computer...** in **My Network Places** and enter the Host Name of the Server (For example, default Host Name "JMS-202" or the Server's IP address) to find it.
7. Double click this Host Name icon.
8. If you clear **Enable SMB/CIFS Print/File Server Authentication** in **Supported Protocols**, you login to the SMB server without requiring authentication; otherwise you have to enter user name and password to login to the Server. You can add user name and password in **User Account** box by the Control Center or the Server's Web page.

 **Note:**  
*If you use SMB on Windows 98 SE/ME, you must login to your Windows 98 SE/ME using the same user name as in the Server's **User Account**.*

9. The shared folders will be listed as USB1\_DyPz, and USB2\_DyPz where Dy

represents the y-th disk and Pz represents the z-th partition with respect to USB1 port and USB2 port.

10. Perform Open, Paste, Remove or Copy the files to the shared folders.

Note: Another way to use shared storages by SMB/CIFS method : In Control Center, click the "Network Storage" button, as the following figure.



#### 6.5.4 Using Shared Storage by FTP Methods for Windows

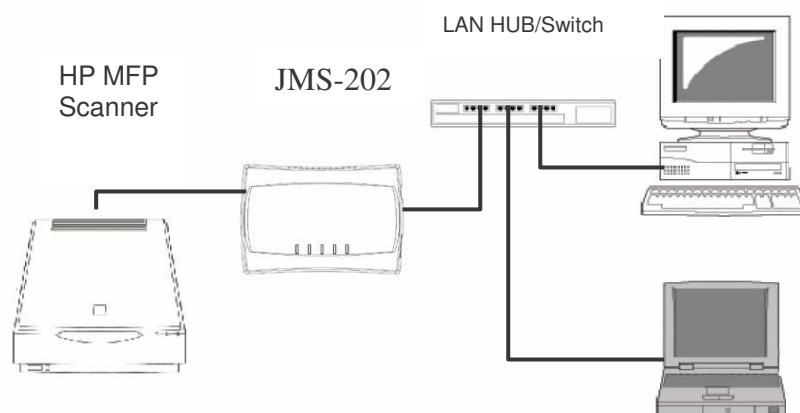
- A. Use Microsoft IE to the shared USB Mass Storages
  1. Open Microsoft IE
  2. In **Web Address List**, enter command: "`ftp://Server's Host Name`" or "`ftp://Server's IP address`". If you have changed the default FTP port : 21 to the new value, you have to add the new port number in the tail of command as "`ftp://Server's Host Name: ftp port`" or "`ftp://Server's IP address: ftp port`".
  3. If you set **Enable Server Authentication in FTP server protocol settings** you have to enter user name and password to login to the Server; if you set **Allow Anonymous Login**, you can use the user name "anonymous" to login with Read-only permission. If you clear Server authentication, you do not need username or password to login to the Server. You can add user name and password in **User Account** box by the Control Center or the Server's Web pages.
  4. The shared folders will be listed in IE.
  5. Perform Paste, Remove or Copy the files to the shared folders.
- B. Use Microsoft Dos's FTP client
  1. Enter Dos command as "ftp"
  2. Enter "`open server's Host Name`" or "`open server's IP address`". If you have changed the default FTP port : 21 to the new value, you have to add the new port number in the tail of command as "`open server's Host Name ftp port`" or "`open server's IP address ftp port`".

3. If you set **Enable Server Authentication** in **FTP server protocol settings** you have to enter user name and password to login to the Server; if you set **Allow Anonymous Login**, you can use the user name “anonymous” to login with Read-only permission. If you clear Server authentication, you do not need username or password to login to the Server. You can add user name and password in **User Account** box the Control Center or the Server’s Web pages.
4. Perform FTP commands to use this FTP server.

## Chapter 7 Scan Server

This chapter explains how to use the scan server function of this product. The scan server function enables a USB scanner of HP all-in-one series, connected to this product, to be shared as a network scanner. The scan server function is available in any platform that can use SANE client. For non HP MFPs/Scanners, please use “NetUSB” technology, which is described in Chapter 9.

### 7.1 Connecting HP All-In-One to the Server



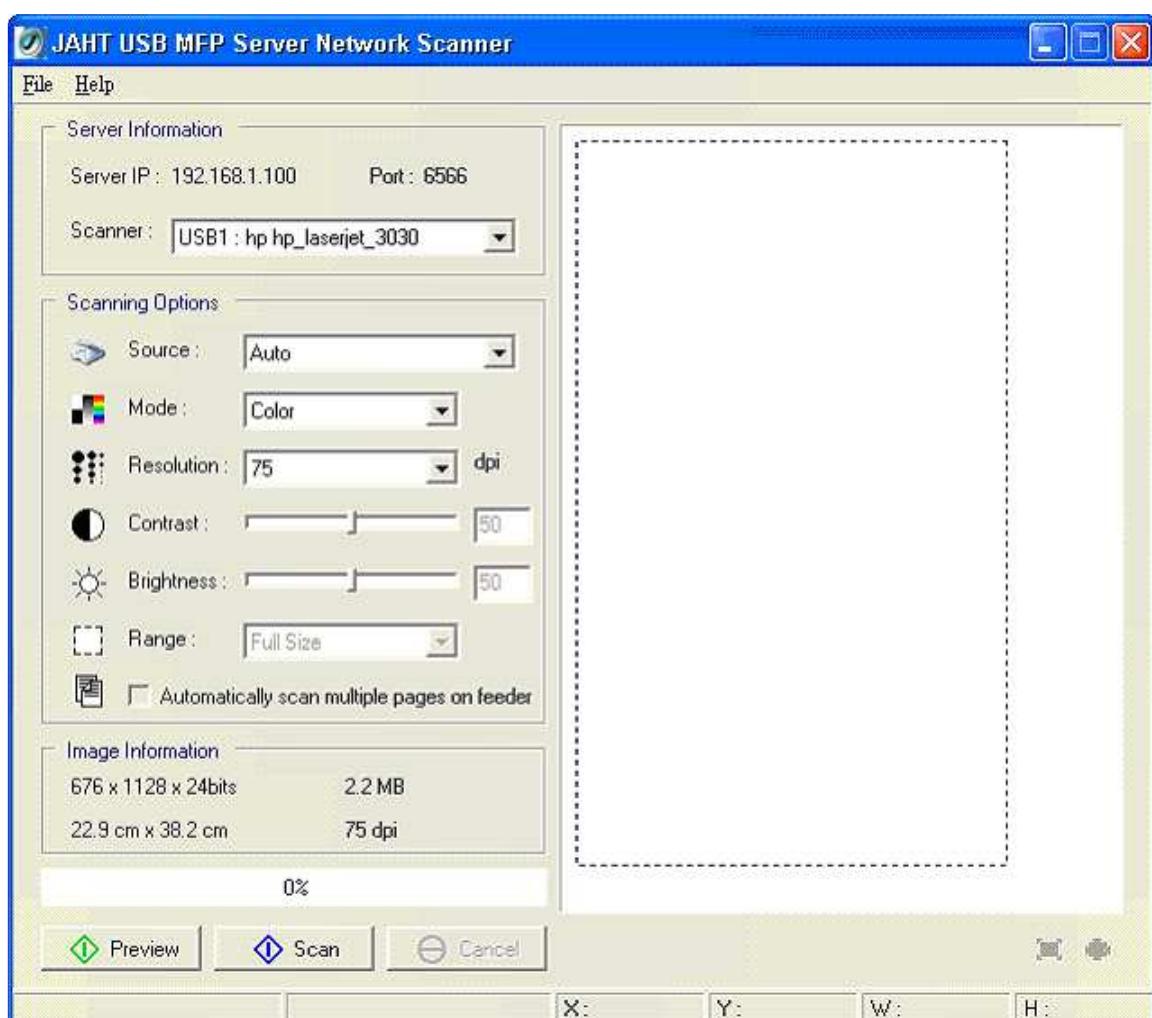
## 7.2 Using the Shared Scanner in Windows

### 7.2.1 Using the Control Center

1. Start the Control Center, select your Server, and click Network Scanner.



2. Select your scanner for USB1 port or USB2 port.



3. Set the options. The options are defined as follows:

- **Source:** choose flatbed scanning or scrollfed scanning

- **Mode:** choose line art (black/white), Gray and color mode
- **Resolution:** choose the image resolution
- **Contrast:** tune the contrast of the image
- **Brightness:** tune the brightness of the image
- **Range:** define the scanning range of the image

Note: Not all the MFP scanners support the options above. In such a case, the options will be grayed out and not accessible.

4. Click **Preview** button.
5. Adjust the window size to be scanned.
6. Click **Scan** button.
7. Save as your images to the file.

### **7.2.2 Using Windows Applications**

Prior to using scanning functions in Windows applications such as MS Word, Photoshop ...etc, you have to install network scanner's TWAIN driver in advance. When you install the Control Center, it will also install this TWAIN driver.

#### **Example: Using Photoshop**

1. Start **Photoshop**, click **File ->Import->JMS-202 Network Scanner**
2. Select a Server's IP address or enter a Server IP address in **Server Information** box. You can click **Search Server** button  to search existing Servers in your network.
3. Click **Connect to Network Scanner** button  in **Server Information** box.
4. Select your scanner in **Server Information** box.
5. Click **Preview** button.
6. Adjust the window size to be scanned.
7. Click **Scan** button.

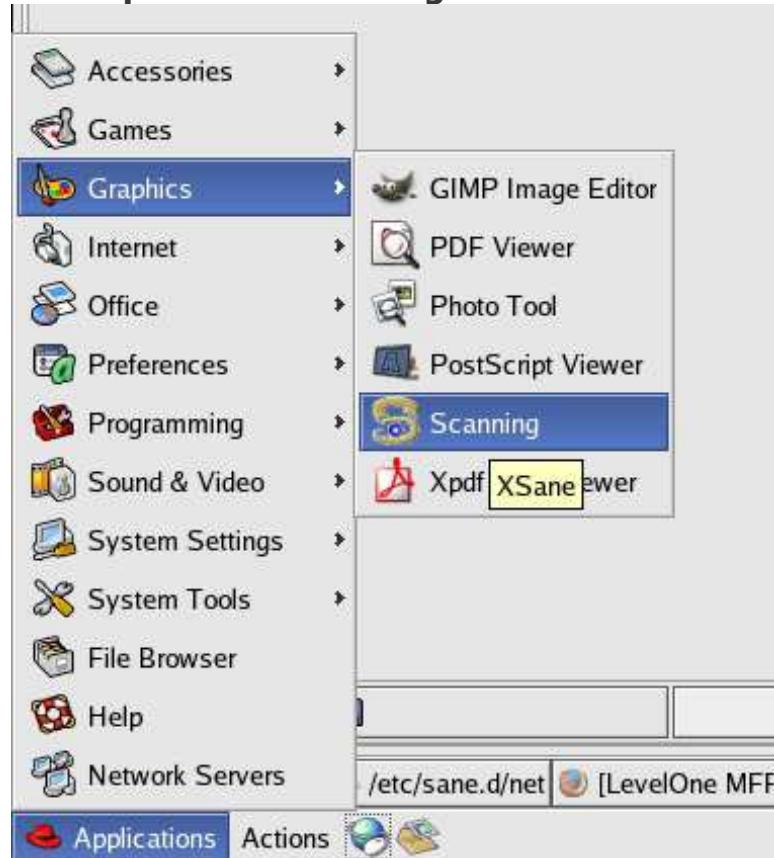
### **7.3 Using the Shared Scanner in Linux**

#### **7.3.1 Using XSane in RedHat Linux**

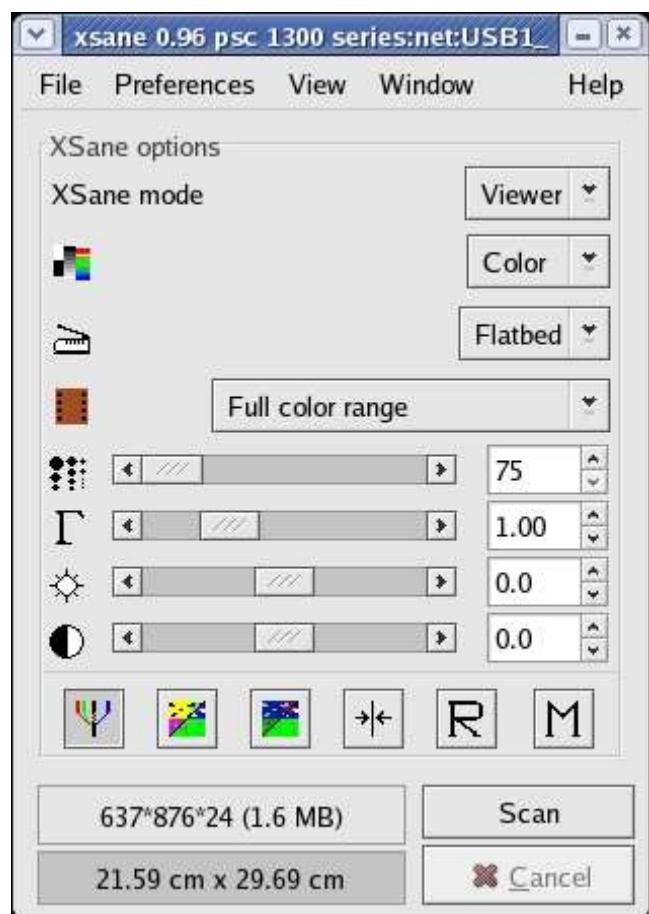
1. Download SANE-Backends from <http://www.sane-project.org>.
2. Download and install SANE-frontends: XSane (UNIX binary) from <http://www.xsane.org>.
3. Edit `/etc/sane.d/net.conf` and put the IP address of the Server where the

scanner is connected into one line, for example:  
192.168.1.100.

4. To start the application, select **Main Menu** button (on the Panel)->**Applications->Graphics -> Scanning**.



5. Perform scan function.



# Chapter 8      The Control Center

This chapter describes how to use the Control Center.

## 8.1    Installing Control Center

1. Insert the included CD into the personal computer. The Autorun screen as in the following should appear.
2. Click **Install Application** button.
3. Click **Next**, if you see any **Next** button in installation windows.
4. Click **Finish**.



## 8.2    Using the Control Center

### 8.2.1    Using Tools of Control Center

You can use the following tools to help you use the server:



- *Auto Search* : renew to auto search the existing servers in the network.
- *Refresh* : refresh the highlight list's server status.
- *Configure MFP Server* : configure the highlighted server.
- *Goto HomePage* : go to the web pages of the highlighted server.
- *Network Scanner* : perform network scanner function of the highlighted

server.

- *Set Printer*  : perform set printer function of the highlighted server.
- *Network Storage*  : access the network storage by SMB/CIFS method. The storage access mode must be in Server Mode.

Note 1: You can also right-click the mouse button on the highlighted server to get the "Configure MFP Server", "Goto HomePage", "Network Scanner", "Set Printer", and "Network Storage" functions.

Note2: You can also double-click on the highlighted server to get the "Configure MFP Server" function.

## 8.2.2 Displaying Server Status

You can start the Control Center and select your Server to see its status which includes Host Information, TCP/IP, USB Devices Status, and Supported Protocols.

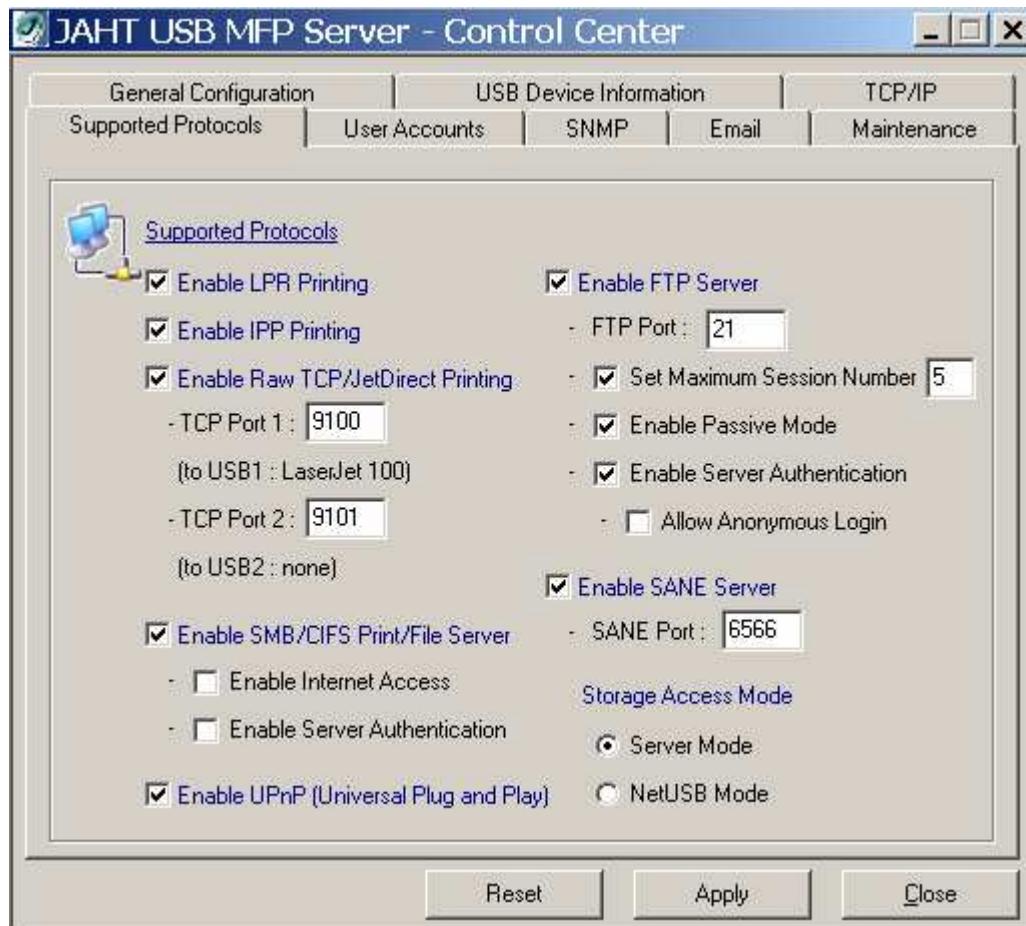
## 8.2.3 Setting up Server Configuration

Click the "Configure MFP Server" button to setup the highlighted server. Then type the administrator ID and password to login.

- **General Configuration**
  - ◆ **Set Host Information:** You have to set some information for using SMB protocol:
    - Comment:* optionally set to describe the Server
    - Host Name:* the name to represent the Server for using SMB/CIFS protocol
    - Workgroup:* the SMB/CIFS workgroup name that the Server belongs to.
  - ◆ **File Server Codepage:** If users want to communicate files using FTP client tool or SMB on Windows 98 SE/Me/2000 with the Server, they have to set their Server codepage to be same as the codepage that their Windows PC is using. Generally, the criteria of choosing codepage are based on your Windows codepage. For example, if your Windows codepage is Traditional Chinese, you have to select Traditional Chinese (Big5) in the Server. Please refer to the chapter "File Server".
- **USB Device Information:** You can set printer names and display some information of USB mass storages and scanners. Please refer to the chapter "Print Server", the chapter "File Server", and the chapter "Scan Server".
- **TCP/IP:** You have to set the Server's TCP/IP configuration to connect TCP/IP network. Please see the chapter on Basic Installation for more details.
- **Supported Protocols:** The Server supports the following TCP/IP protocols:
  - ◆ **TCP/IP**

- Enable LPR (Line Printer Remote) Printing:* select or clear **Enable LPR Printing** support. It is enabled in Factory Default.
- Enable IPP Printing:* select or clear **Enable IPP Printing** support. It is enabled in Factory Default.
- Enable Raw TCP Printing:* select or clear **Enable Raw TCP Printing** support. It is enabled in Factory Default and users may set the protocol's TCP ports as following boxes:
  - *TCP Port 1:* set TCP port for the printer of USB1 port (default: 9100)
  - *TCP Port 2:* set TCP port for the printer of USB2 port (default: 9101)
- Enable SMB/CIFS Print/File Server:* select or clear **Enable SMB/CIFS Print/File Server** support. It is enabled in Factory Default.
  - *Enable Internet Access:* select or clear **Enable Internet Access** support. If you clear the item, you do not allow that users can access your SMB/CIFS server via Internet. If you select the item, you allow Internet users can access your storage using the SMB/CIFS protocol.
  - *Enable Server Authentication:* select or clear **Enable Server Authentication** support. Select the item, if you want to share your storage or printer with user level security which requires user name and password to login. If you clear the item, your storage will be shared without security.
- Enable FTP Server:* select or clear **Enable FTP Server** support. It is enabled in Factory Default and users may set some parameters as follows:
  - *FTP Port:* Enter an integer number to set FTP server's TCP port (default: 21)
  - *Set Maximum Session Number:* select or clear **Set Maximum Session Number** support. You can limit the FTP session number by selecting the support and enter an integer to set the allowable maximum session number. If you clear this field it means that FTP server will have no limitation in session number.
  - *Set Passive Mode:* select or clear **Set Passive Mode** support that FTP server can accept passive mode.
  - *Enable Server Authentication:* select or clear **Enable Server Authentication** support. If you select the support, you need to enter user name and password to login to the Server. If you clear the support, you do not need user name and password to enter the Server.
  - *Allow Anonymous Login:* select the item, if you want to allow the user "anonymous" to login to your FTP server with Read-Only permission and FTP server will not check the password. If you clear the item, your FTP server will not support anonymous login function.
- Enable SANE (Scanner Access Now Easy) Server:* select or clear **Enable SANE Server** support. It is enabled in Factory Default and users may set the TCP port as follows:
  - *SANE Port:* set SANE server's TCP port (default: 6566)

- Enable UPnP (Universal Plug and Play)*: select or clear **Enable UPnP** support. It is enabled in Factory Default.



- ◆ **Storage Access Mode**
  1. **Server Mode:** In this mode, you can access the USB storage via FTP or SMB/CIFS protocols. Only FAT16/32 file format is supported in this mode. This is the default mode.
  2. **NetUSB Mode:** In this mode, you can access the USB storage using NetUSB technology. In this mode, FAT16/32 and NTFS file formats are supported, but only one user is allowed to access the storage at the same time. Please refer to chapter 9 for the details about NetUSB technology.
- **User Accounts:** You can change administrator name and password or add a user account for SMB/CIFS Print/File server and FTP File server. If you forgot administrator name and password, you must to perform Restore Factory Default action by plugging in the power adaptor while pressing the Init button. Please refer to the chapter "Restore Factory Defaults". Administrator owns the Read-Write Permission for File servers.
  - ◆ **Set Administrator**
    - New Administrator*: enter your desired administrator name.
    - New Password*: enter your desired password.
    - Retype Password*: confirm your previous password typing.
  - ◆ **User Accounts list**

- User name*: add a new user account for accessing the storage attached to the Server.
- Password*: set a password for added user.
- Permission*: select Read-Only or Read-Write permission to access File servers.
- Add*: click **Add** button, after entering the user name, corresponding password, and Permission selection. The account will take effect once shown in the blank below.
- Delete*: delete the existing user account.



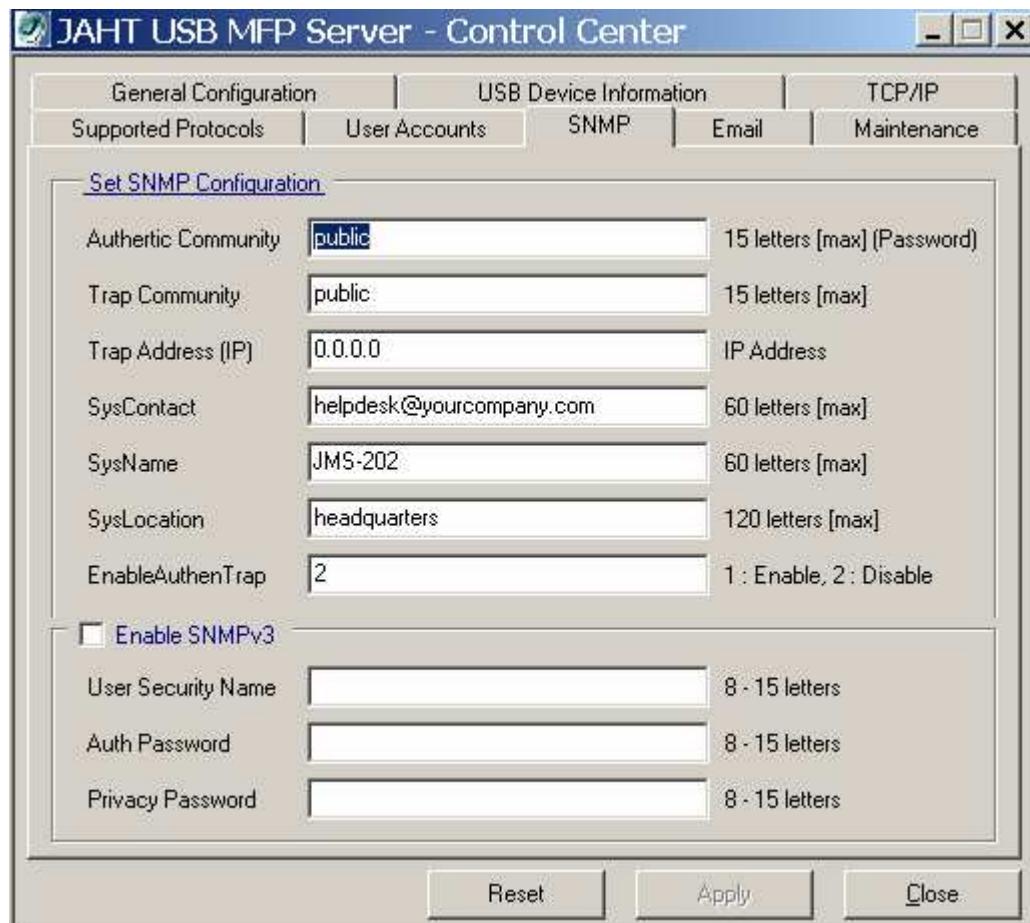
- **SNMP**: You can set community and some parameters for SNMP server. Furthermore, you can enable SNMP v3 for more security.

#### ♦ Set SNMP Configuration

- Authentic Community*: set Community name of SNMP server.
- Trap Community*: set Trap Community name for SNMP server to send trap packets.
- Trap Address*: enter an IP address to send the Trap packet.
- SysContact*: enter some letters for variable of *SysContact* that represents the name of system contact.
- SysName*: enter some letters for variable of *SysName* that represents the name of system.
- SysLocation*: enter some letters for variable of *SysLocation* that represents the location of system.
- EnableAuthenTrap*: enter 1 or 2 for the variable of *EnableAuthenTrap* that

represents to enable (1) or disable (2) to send Trap packets receiving the wrong Community name.

- ◆ SNMP V3
  - Enable SNMP V3*: select or clear **Enable SnmpV3** support
  - User Security name*: set user security name of SNMP v3
  - Auth Password*: set authentication password of SNMP v3.
  - Privacy Password*: set privacy password of SNMP v3.

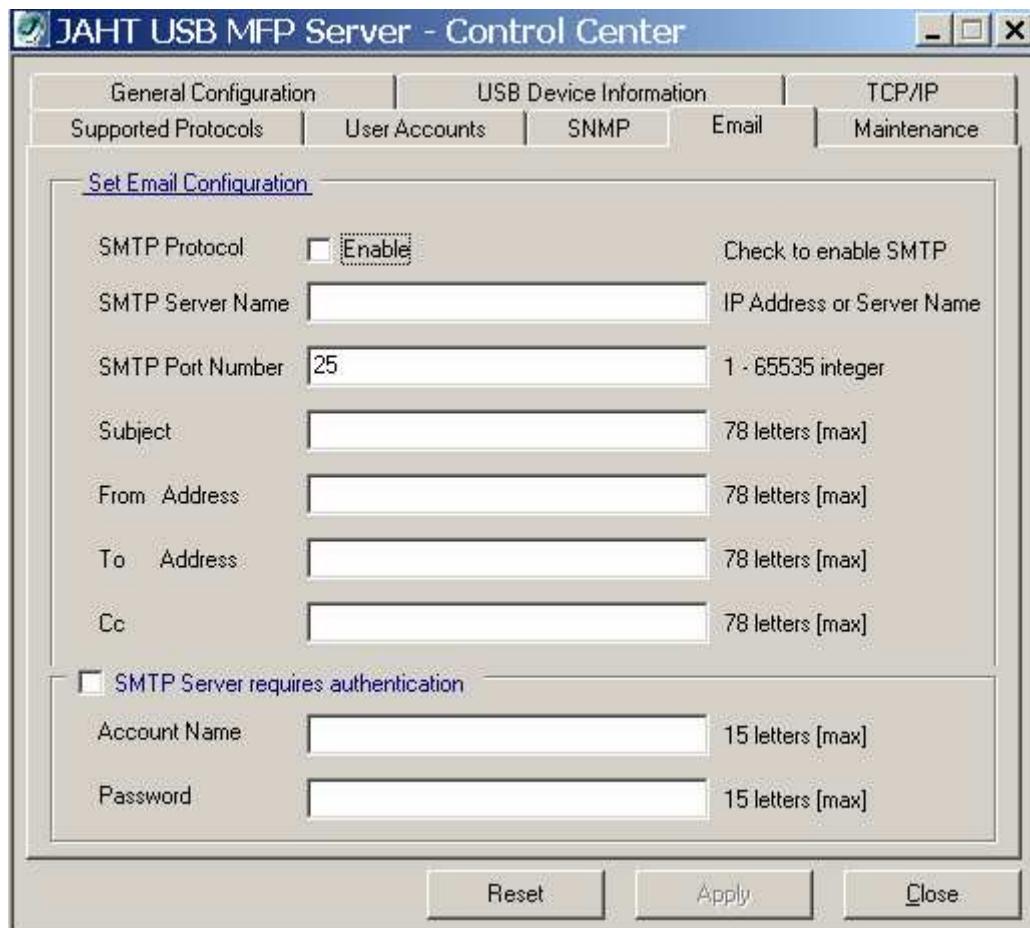


- **Email:** If you want to receive some alerting mail from the Server, you have to enable SMTP Protocol, and set Email configuration. You can set new SMTP port number (default: 25).

- ◆ **Set Email Configuration**

- SMTP Protocol*: select or clear **Enable** SMTP support
- SMTP Server Name*: enter your SMTP server's Host Name or IP address.
- SMTP Port Number*: set new SMTP server's TCP port number (default: 25).
- Subject*: enter the subject of the e-mail.
- From Address*: enter the sender's e-mail address.
- To Address*: enter an e-mail address to send that mail to a person.
- Cc*: stands for carbon copy; enter an e-mail address to send that mail to a second person.
- SMTP Server requires authentication*: login to remote SMTP server which requires authentication.

- Account Name:** enter account name for remote SMTP server.
- Password:** enter account's password for remote SMTP server.



- **Maintenance:** If you want to restart the Server, restore the Server to factory defaults, download new firmware file from product's public website and upgrade new firmware, you can use the Maintenance tool.
  - ◆ **Restart Server:** click this button, the Server will restart.
  - ◆ **Factory Default:** click this button, the Server will restore factory default values.
  - ◆ **Download New Firmware:** click this button to download new firmware or user software from this product's public website.
  - ◆ **Upgrade Firmware:** click **Open** to find the firmware file to be upgraded. Click **Upgrade** to upload the firmware into the Server.



## 8.3 Quitting the Control Center

The Control Center doesn't really quit if you click the "X" box (close box) at the top right corner of the window. Instead, it just minimizes itself to the system tray. There are two ways to really close the Control Center. The first way is choosing "Exit" item in the "File" menu in the Control Center. The second way is right-clicking the icon of the Control Center in the system tray and choosing the "Exit" item.

# **Chapter 9      The NetUSB Technology**

## **9.1        Introduction**

The goal of JMS-202 USB MFP server is to provide the print/scan/file server in a single product. For printers and scanners, there is no industrial standard. In order to support many different models of printers and scanners from various vendors, you must put so many printer/scanner drivers into a single product. Obviously this is very hard and not practical. We have developed a new technology, called "NetUSB", to solve this problem. With the NetUSB technology, it is not necessary to implement printer/scanner drivers in JMS-202. Actually, JMS-202 relies on printer/scanner drivers that are installed on PCs. By the way, in the field of traditional network print server, the common protocols used are, for example, SMB/CIFS, LPR, raw TCP, and IPP. However, in order to reduce cost, many printer vendors produce so-called GDI or host-based printers. For technical reasons, these kinds of printers can not work with the traditional network printer protocols. The NetUSB technology can also deal with the problem. The basic concept and the usage of NetUSB will be introduced in this chapter.

In summary, JMS-202 has a totally different technology, "NetUSB", to deal with printers and scanners (MFPs).

- A. For printers, some special kinds of printers, such as GDI printers or host-based printers, can not work well with traditional print server technology as described in the previous chapters. Users should use the NetUSB technology to deal with these kinds of printers.
- B. For MFPs or scanners, the operations described in chapter 7 are only workable for HP's MFPs. Users should use the NetUSB technology to deal with non-HP MFPs.
- C. For USB mass storage, such as USB hard drives and flash drives and card readers on some kinds of MFPs, users can also use the NetUSB technology to access them in single-user mode. By this way, NTFS file system is supported for read/write. To use the NetUSB technology to access storage, please set the storage access mode to NetUSB mode. Please refer to chapter 8 for how to set the storage access mode.

Note: The default storage access mode is server mode.

## **9.2        Link & Unlink**

"NetUSB" allows you to use USB printers or USB MFPs as if they were connected directly to your PC although they are actually connected to the JMS-202 USB MFP server. The "link" operation is a software operation that simulates an actual USB device plug-in. That is to say, when you do a "link" operation in the Control Center, PC can then detect a USB device's plug-in, although actually you do not plug in any USB device. Similarly, the "unlink" operation is a software operation that simulates the disconnection of the USB device. Once the link operation is successful, the operations to use that USB device are just the same as if the USB device is directly connected to the PC.

If a USB device is linked by a PC, we say that PC has the ownership of the USB device.

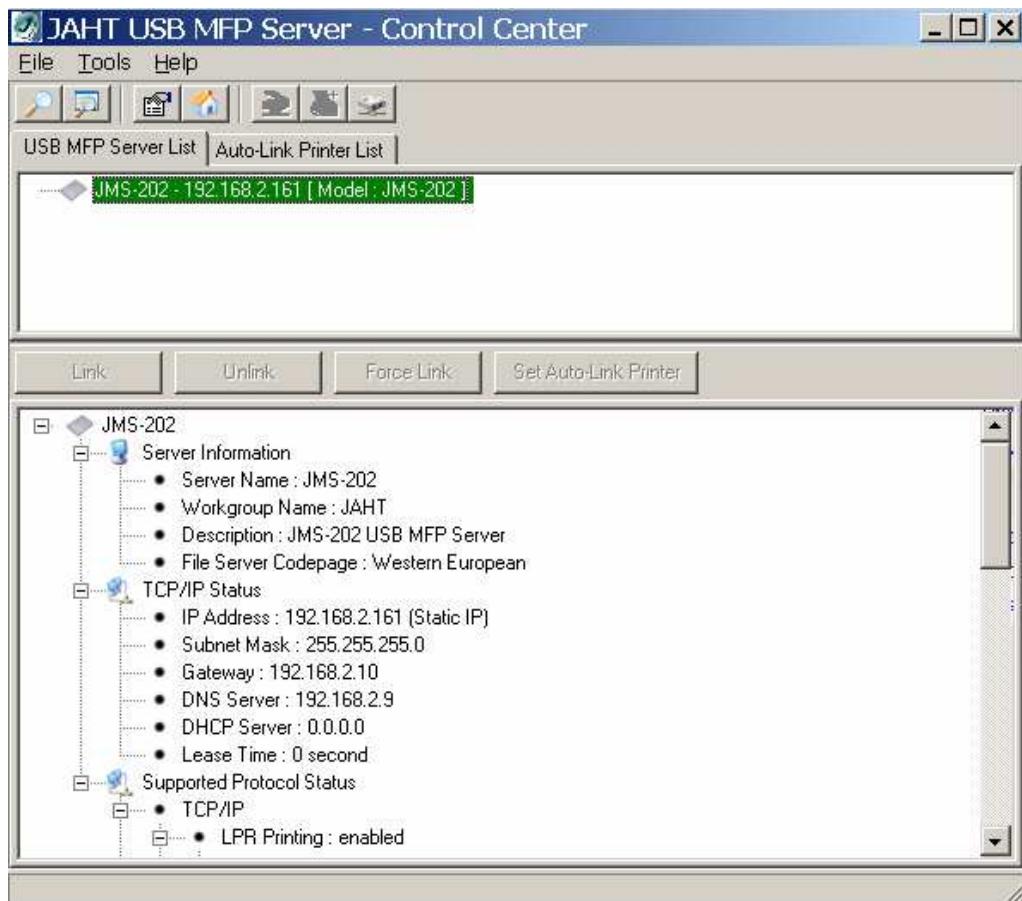
Only one PC can get the ownership of a USB device at a time. However, we provide a “force link” operation for users to ungracefully get the ownership. Basically, the “force link” operation is equivalent to two consecutive operations – unlink from the original PC and link to the new PC. However, we don’t recommend this way to get ownership because data loss may occur if the USB device is busy in operation while the “force link” takes place.

For printers, users can mix print jobs with traditional printing protocols, such as LPR or SMB or IPP, and with the NetUSB printing, as long as the printer is in “unlink” state (that is, no PC get the ownership of that printer.) when a print job with traditional protocols occurs. Similarly, for scanners, users can mix scan jobs with “Network Scanner” described in Chapter 7 and with the NetUSB scanning, as long as the scanner is in “unlink” state when a user uses “Network Scanner” to scan. However, for USB storage, if the storage access mode is in NetUSB mode, users can only use NetUSB technology to access storage. On the other hand, if the storage access mode is in server mode, users can only use FTP or SMB to access storage.

## **9.3 How to Use**

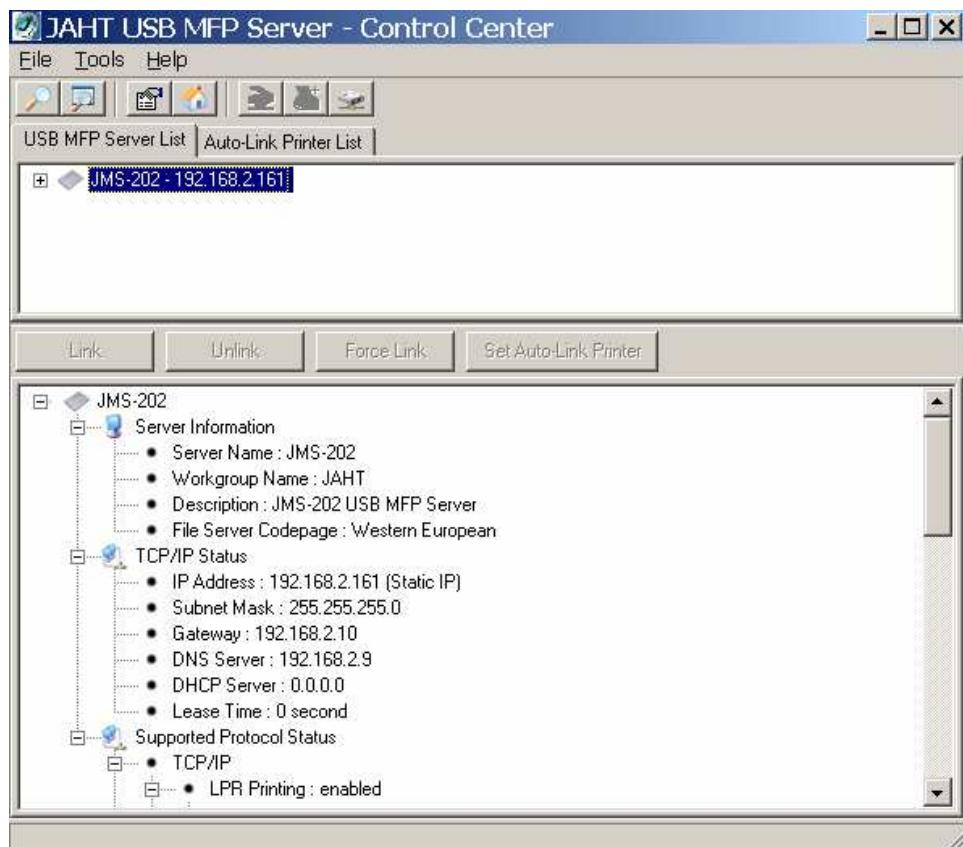
### **9.3.1 Remote Installation**

Here we will describe how to use the NetUSB technology to do “remote installation” for a USB device. Before using the NetUSB technology, you must first make sure that your PC can access JAHT USB MFP server via TCP/IP. The simplest way to do this is using “Control Center” to search for the JAHT USB MFP server on the network and change its IP address to be the same subnet as your PC. If the MFP server and your PC are not in the same TCP/IP subnet, Control Center will show the MFP server in green, as the following figure. You must change the IP address (or using DHCP) of the MFP server so that the MFP server and your PC are in the same subnet. Control Center will show these MFP servers in blue, meaning you can safely access these MFP servers by the NetUSB technology.

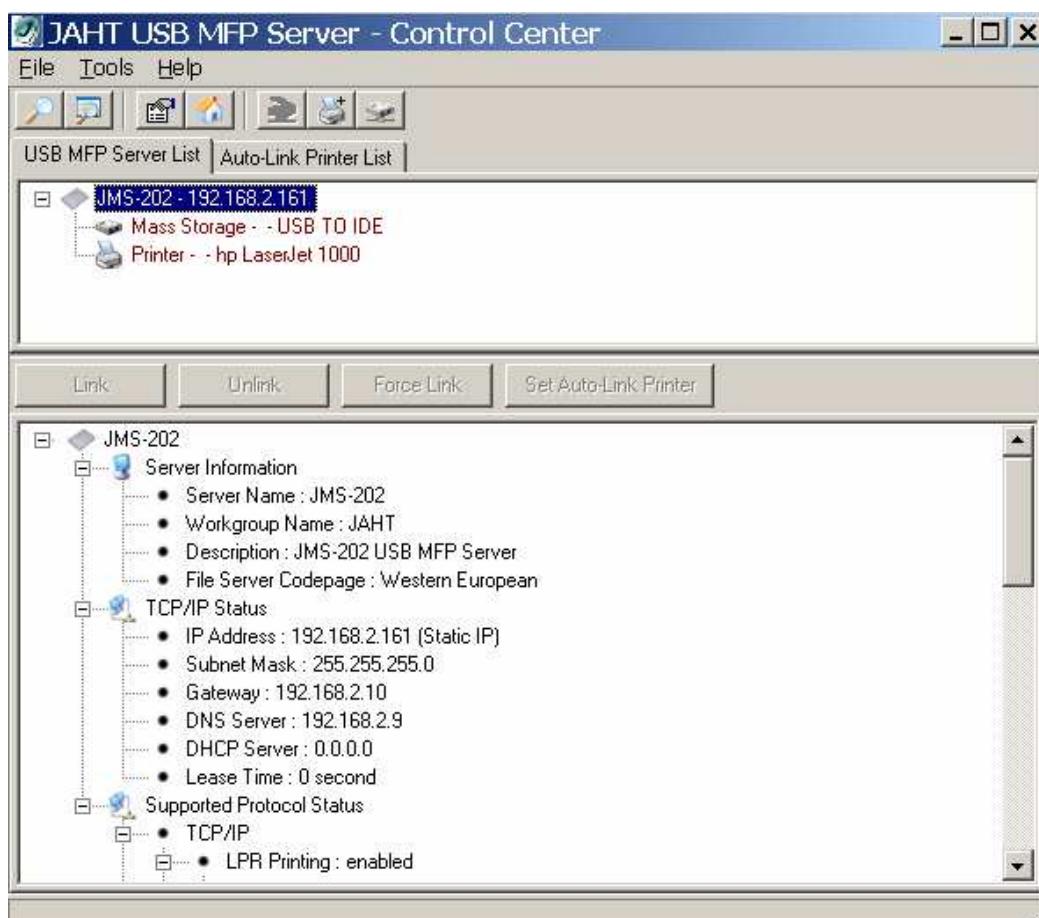


The steps to do remote installation for USB devices, like MFPs:

- A. Turn on JMS-202 and the USB device.
- B. Connect the USB device to JMS-202. The LED of the USB port will light-on.
- C. Run the Control Center. In the “USB MFP Server List” window, you can see the host names and IP addresses all of the JMS-202 servers (in blue) on the network, as the following figure.

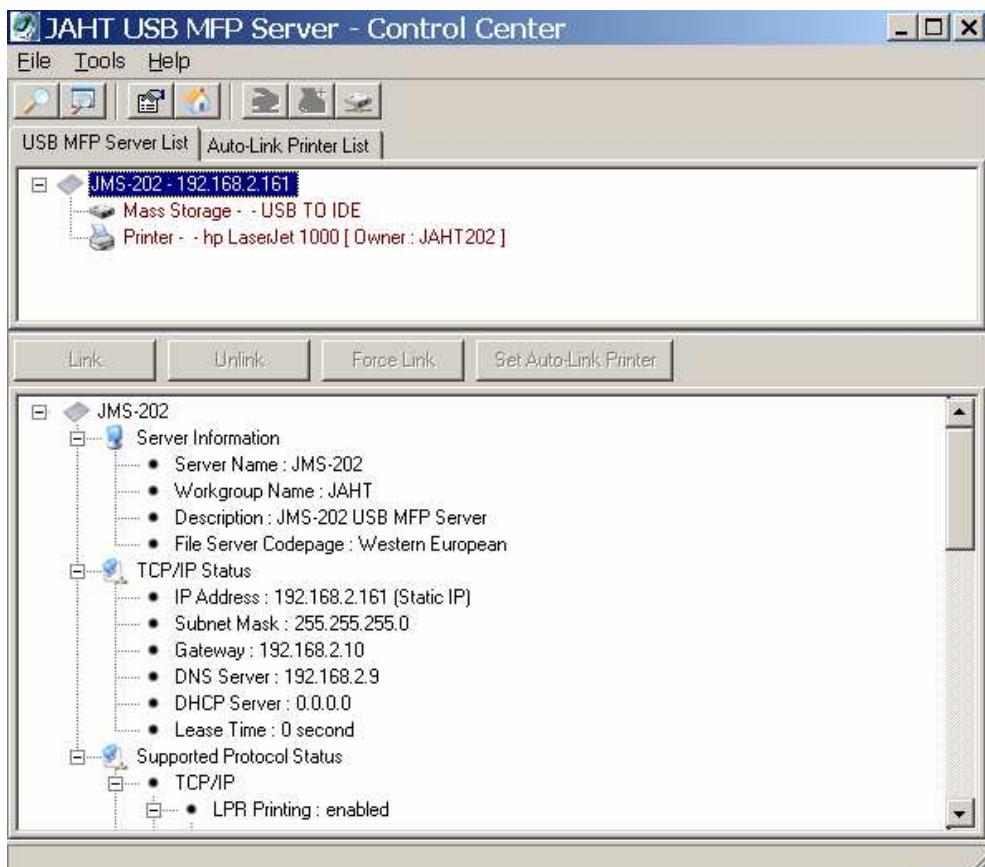


D. Click the server. Then all USB devices attached on the server will be shown.



E. Please follow the user manual of the USB device to do the driver installation. For example, you may put the driver CD of the USB device in the CDROM to install the driver.

F. When you are asked to plug in the USB device into PC's USB port, either before running the driver setup program or during the execution of the driver setup program (This depends on the USB device. Please check the user manual from the vendor.), click the desired USB device in the Control Center and then click the "Link" button to do the link operation and get the ownership of the USB device, as the following figure. The computer name of the device owner will be shown at the end of the device.



G. PC will automatically detect the plug-in of the USB device. On the right side of Windows Task Bar, you can see the information of the new device. Continue to follow the user manual of the USB device to do the rest jobs of installation, until the driver installation finished.

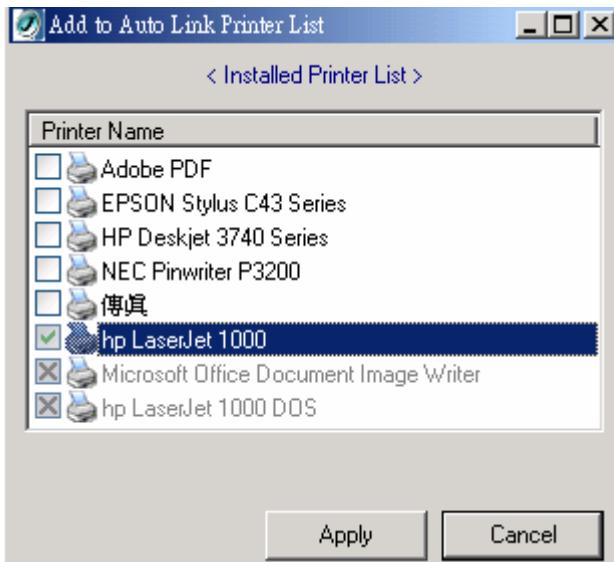
After the installation, you can see the newly created devices on the PC. If the USB device is a MFP, you can see a new printer and a new scanner from the "Control Panel".

### **9.3.2 NetUSB Printing**

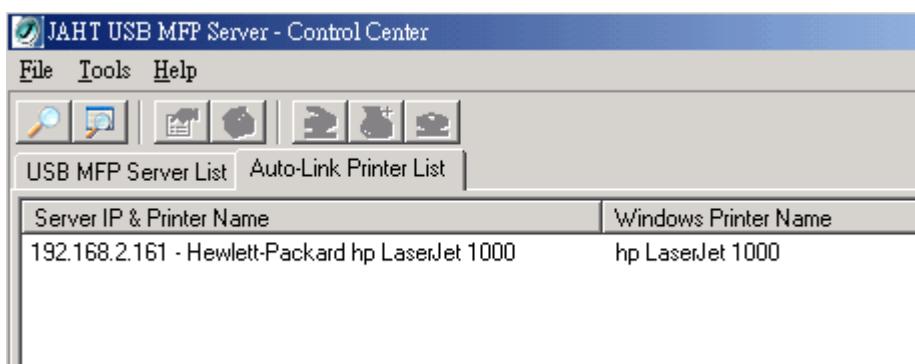
After the driver is installed as described in 9.3.1, you can see a newly created printer in the Control Panel's "Printers and Faxes". Follow the steps below to do a NetUSB printing.

A. In the Control Center, click the MFP server that has the desired printer (or MFP) attached.

- B. Click the desired printer (or MFP).
- C. Click the “Set Auto Link” button. The following figure will appear.



- D. Choose the desired printer. The desired printer must be the Windows printer (this is a logical printer) that matches the printer attached on the MFP server (this is a physical printer). Then click the “Apply” button.
- E. Then, in the “Auto Link Printer List” you can see a newly created item that describes the association between the Windows printer and the physical printer on the server.



- F. Then try to issue a print job to the desired printer. You will see the Control Center will automatically do a link operation and, once the print job finished, it will automatically do an unlink operation. This is so-called “Auto Link / Unlink” operation.
- G. Even you already properly setup an auto-link printer, the Control Center must be running while a print job is issued. This means you'd better run the Control Center every time after you login Windows. In order to skip this manual operation, you can make the Control Center be run automatically after you login Windows. To do this, choose the “Configuration” item in the “Tools” menu. The following window will appear. Click on the check box and then on the “OK” button. This feature is enabled by default.

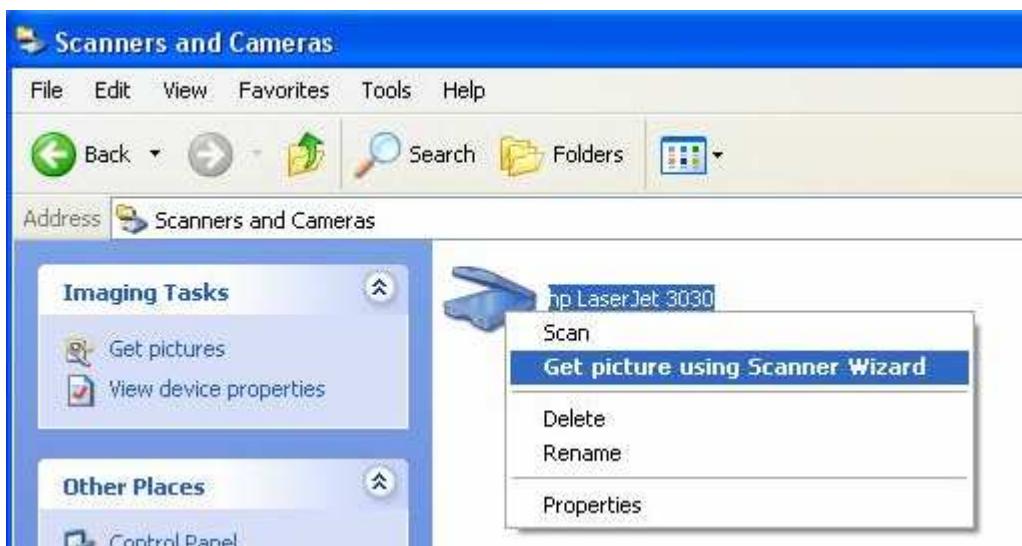


- H. If you would like to break the association between the Windows printer and the physical printer, just click on the association and click the "Delete" button in the "Auto Link Printer List".
- I. By the way, if the printer is manually linked (owned) by someone else and he forgets to unlink the printer, you can click the "Force Link" button to forcedly get the ownership. However, this way is not recommended.

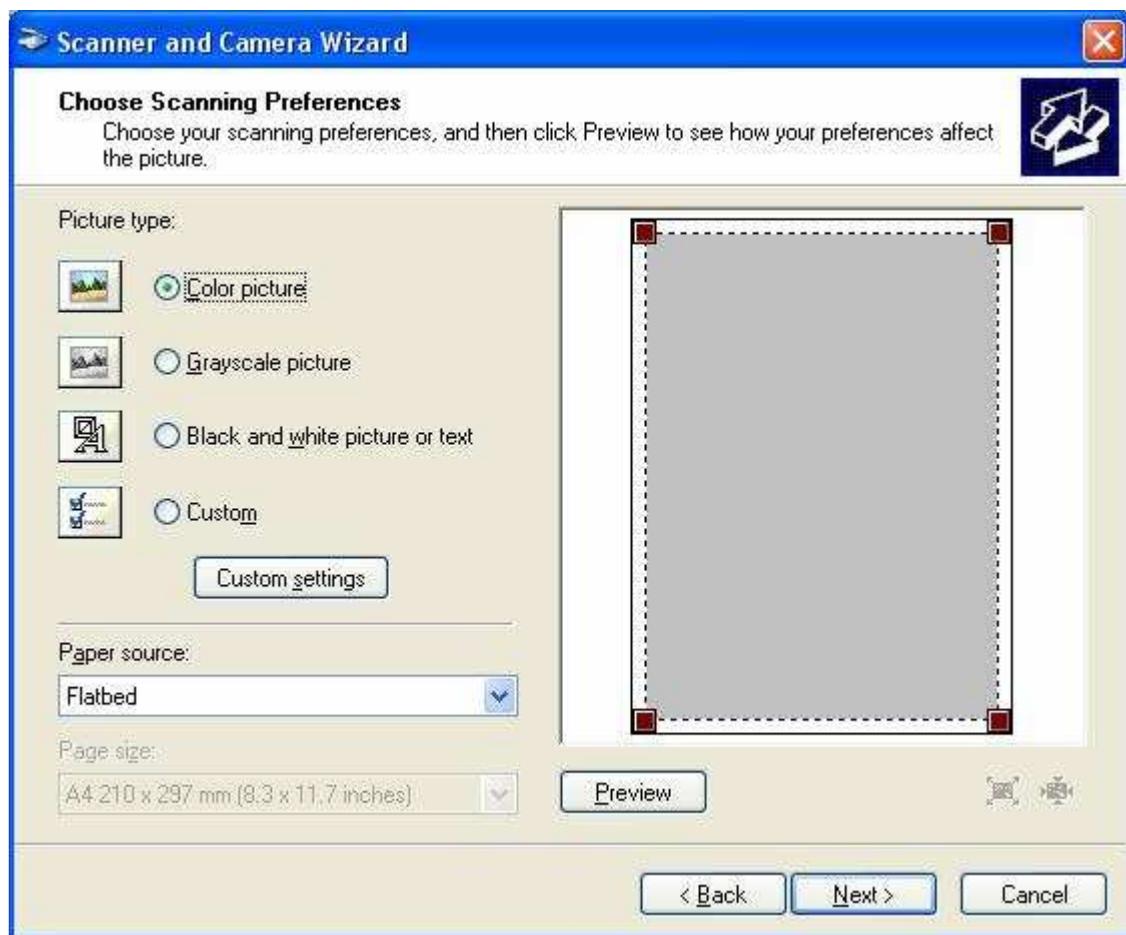
### 9.3.3 NetUSB Scanning

After the driver is installed as described in 9.3.1, you can see a newly created scanner in the Control Panel's "Scanners and Cameras". Follow the steps below to do a NetUSB scanning.

- A. In the Control Center, click the MFP server that has the desired scanner (or MFP) attached.
- B. Click the desired scanner (or MFP).
- C. Click the "Link" button to manually link the scanner (or MFP).
- D. Right-click the scanner icon in the Control Panel's "Scanners and Cameras", and choose "Get picture using Scanner Wizard", as the following figure.



- E. Then the "Scanner Wizard" will run. Set the options as your need. Then submit the scan job.

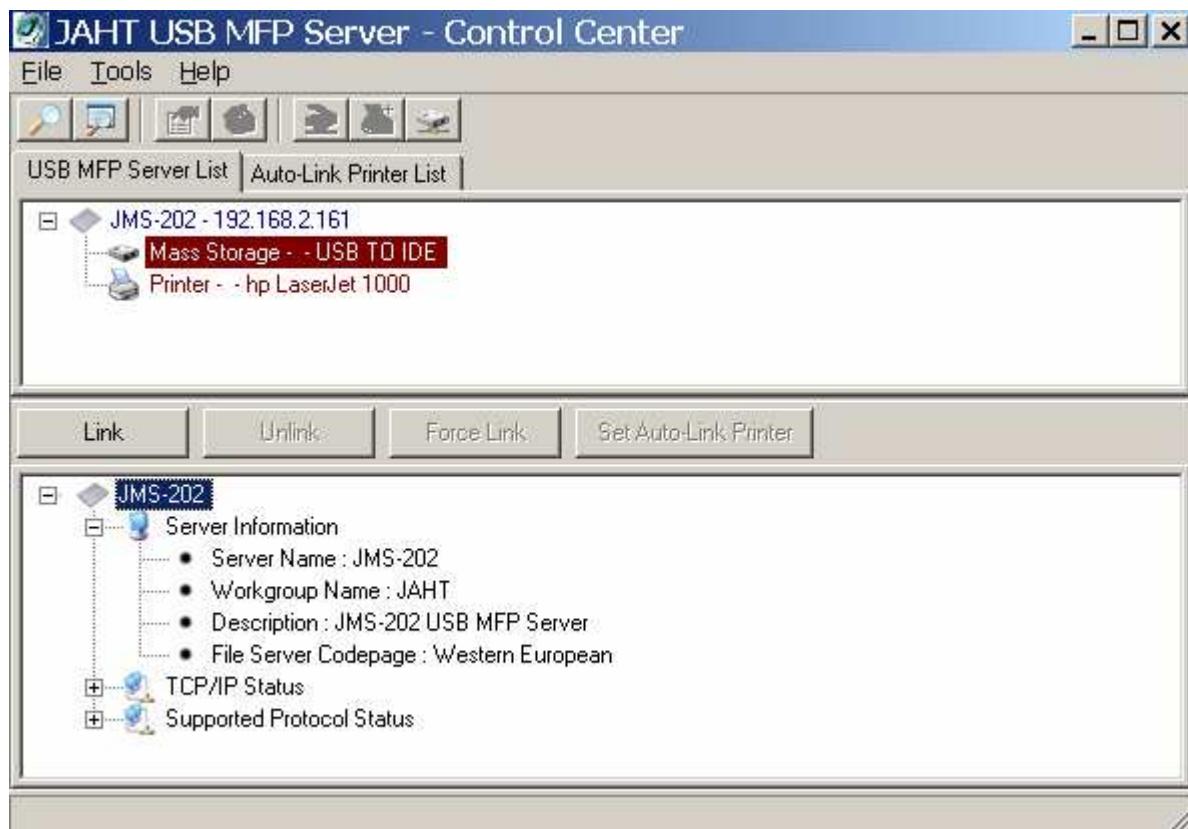


F. After the scanning finished, click the “Unlink” button in the Control Center to release the ownership of the scanner (or MFP).

#### 9.3.4 Accessing USB Storage using NetUSB Technology

Before you use NetUSB technology to access USB storage, please make sure the storage access mode is in NetUSB mode.

- A. In the Control Center, click the MFP server that has the desired USB storage device attached.
- B. Click the desired USB storage device.



- C. Click the “Link” button to manually link the USB storage device.
- D. Your PC will have a new disk. For example, if you link a flash drive, your PC will have a new “removable disk”. You can see the storage icon in the system tray, as the following figure.



- E. Just use the new disk as a general disk.
- F. After you finish the disk operations, click the storage icon in the system tray and choose “Safely remove USB Mass Storage Device”.



- G. In the Control Center, click the “Unlink” button to unlink the USB storage device.

Please note that by this way, FAT32 and NTFS file system can be fully supported.

## 9.4 Limitations

There are some limitations to use the NetUSB technology.

- A. Only supports Windows 2000/XP/2003. Windows 98/ME is not supported.

- B. Only one PC can get the ownership of the same USB device at a time. Moreover, once a USB device is “linked” by a PC so that the PC “owns” that USB device, other PCs can not “access” this USB device by any means. For example, if a printer is linked by a PC using the NetUSB technology, no other PCs can print to this printer by LPR or SMB or IPP protocols, until the printer is unlinked.
- C. The “Auto Link / Unlink” function can only be used with printers. Only manually link/ unlink is supported for scanners or USB storage.
- D. For USB storage, although NTFS can be supported by the NetUSB technology, it can not be shared among network users.

# Chapter 10 The Server's Web Pages

## 10.1 Introduction

The Server runs the daemon of http server, *httpd* on TCP port: 80. Users may use the web pages to see the Server's system status and configure the Server.

## 10.2 Using the Server's Web Pages

### 10.2.1 Displaying Server Status

You can see the status of Host Information, TCP/IP and USB devices.

The screenshot shows the JAHT web interface. At the top, there is a navigation bar with links for HOME, STATUS, CONFIG, and CONTACT US. The main content area is titled "STATUS". It contains several sections:

- System Status**: A button labeled "[Reload]" is visible in the top right corner of this section.
- Machine Information**:
  - Firmware Version: 1.33
  - Machine Model: JMS-202
- Server Information**:
  - Server Name: JMS-202
  - Workgroup Name: JAHT
  - Description: JMS-202 USB MFP Server
  - File Server Codepage: Western European
- TCP/TP Status**:
  - IP Address : 192.168.2.161 (static IP)
  - Subnet Mask : 255.255.255.0
  - Gateway : 192.168.2.10
  - DNS Server : 192.168.2.9
  - DHCP Server : 0.0.0.0
  - Lease Time : 0 second
- Supported Protocol Status**:
  - TCP/IP:
    - LPR Printing: enabled
    - IP Address: 192.168.2.161

## 10.2.2 Setting up Server Configuration

To set up the Server configuration, the system will request user to enter administrator (default: *admin*) and password (default: *admin*) to login.

### ■ General Configuration

- ◆ **Set Host Information:** You have to set some information for networking using SMB protocol:
  - Comment:* optionally set to describe the Server
  - Host Name:* the name to represent the Server for using SMB protocol
  - Workgroup:* the SMB workgroup name that the Server belongs to.
- ◆ **File Server Codepage:** if users want to communicate files using FTP client tool or SMB on Windows 98 SE/Me/2000 with the Server, they have to set their Server codepage to be same as the codepage that their Windows PC is using. Generally, the criteria of choosing codepage are based on your Windows codepage. For example, if your Windows codepage is Traditional Chinese, you have to select Traditional Chinese (Big5) in the Server. Please refer to the chapter "File Server".

- **USB Device Information:** You can set printer names and display some information of USB mass storages and scanners. Please refer to Chapter 4, Chapter 6 and Chapter 7.
- **TCP/IP:** You have to set the Server's TCP/IP configuration to connect TCP/IP network. Please see Chapter 3 Basic Installation for more details.
- **Supported Protocols:** The Server supports the following TCP/IP protocols:
  - ◆ **TCP/IP**
    - Enable LPR (Line Printer Remote) Printing:* select or clear **Enable LPR Printing** support. It is enabled in Factory Default.
    - Enable IPP Printing:* select or clear **Enable IPP Printing** support. It is enabled in Factory Default.
    - Enable Raw TCP Printing:* select or clear **Enable Raw TCP Printing** support. It is enabled in Factory Default and users may set the protocol's TCP ports as following boxes:
      - *TCP Port 1:* set TCP port for the printer of USB1 port (default: 9100)
      - *TCP Port 2:* set TCP port for the printer of USB2 port (default: 9101)
    - Enable SMB/CIFS Print/File Server:* select or clear **Enable SMB/CIFS Print/File Server** support. It is enabled in Factory Default.
    - *Enable Internet Access:* select or clear **Enable Internet Access** support. If you clear the item, you do not allow that users can access your SMB/CIFS server via Internet. If you select the item, you allow Internet users can access your storage using the SMB/CIFS protocol.

- *Enable Server Authentication:* select or clear **Enable Server Authentication** support. Select the item, if you want to share your storage or printer with user level security which requires user name and password to login. If you clear the item, your storage will be shared without security.
  
- Enable FTP Server:* select or clear **Enable FTP Server** support. It is enabled in Factory Default and users may set some parameters as follows:
  - *FTP Port:* enter an integer number to set FTP server's TCP port (default: 21)
  - *Set Maximum Session Number:* select or clear **Set Maximum Session Number** support. You can limit the FTP session number by selecting the support and enter an integer to set the allowable maximum session number. If you clear the support, it means that FTP server will have not any limitation in session number.
  - *Set Passive Mode:* select or clear **Set Passive Mode** support that FTP server can accept passive mode.
  - *Enable Server Authentication:* select or clear **Enable Server Authentication** support. If you select the support, you need to enter user name and password to login to the Server. If you clear the support, you do not need user name and password to enter the Server.
  - *Allow Anonymous Login:* select the item, if you want to allow the user "anonymous" to login to your FTP server with Read-Only permission and FTP server will not check the password. If you clear the item, your FTP server will not support anonymous login function.
  
- Enable SANE (Scanner Access Now Easy) Server:* select or clear **Enable SANE Server** support. It is enabled in Factory Default and users may set the TCP port as follows:
  - *SANE Port:* set SANE server's TCP port (default: 6566)
  
- Enable UPnP (Universal Plug and Play):* select or clear **Enable UPnP** support. It is enabled in Factory Default.

## Set Supported Protocols

**TCP/IP**

Enable LPR Printing

Enable IPP Printing

Enable Raw TCP/JetDirect Printing

- TCP Port  (to USB1 )  
- TCP Port  (to USB2 )

Enable SMB/CIFS Print/File Server

-  Enable Internet Access  
-  Enable Server Authentication

Enable FTP Server

- FTP Port   
-  Set Maximum Session Number   
-  Enable Passive Mode  
-  Enable Server Authentication  
-  Allow Anonymous Login

Enable SANE Server

- SANE Port

Enable UPnP (Universal Plug and Play)

**Storage Access Mode**

Server Mode     NetUSB Mode

- ♦ **Storage Access Mode**
  1. **Server Mode:** In this mode, you can access the USB storage via FTP or SMB/CIFS protocols. Only FAT16/32 file format is supported in this mode. This is the default mode.
  2. **NetUSB Mode:** In this mode, you can access the USB storage using NetUSB technology. In this mode, FAT16/32 and NTFS file formats are supported, but only one user is allowed to access the storage at the same time. Please refer to chapter 9 for the details about NetUSB technology.
- **User Accounts:** You can change administrator name and password or add a user account for SMB/CIFS Print/File server and FTP File server. If you forgot administrator name and password, you must perform Restore Factory Default action by plugging in the power adaptor while pressing the Init button. Please refer to the chapter "Restore Factory Defaults". Administrator owns the Read-Write Permission for File servers.
- ♦ **Set Administrator**
  - New Administrator:* enter your desired administrator name.
  - New Password:* enter your desired password.
  - Retype Password:* confirm your previous password typing.

- ❖ **User Accounts list**
  - User name*: add a new user account for accessing the storage attached to the Server.
  - Password*: set a password for added user.
  - Permission*: select Read-Only or Read-Write permission to access File servers.
  - Add*: click **Add** button, after entering the user name, corresponding password, and Permission selection. The account will take effect once shown in the blank below.
  - Delete*: delete the existing user account.

### Set User Account

Set Administrator		Submit	Reset
New Administrator	<input type="text" value="admin"/>	15 letters [max]	
New Password	<input type="password"/>		
Retype Password	<input type="password" value="I"/>		

### User Account List

User Name	<input type="text"/>	Password	<input type="password"/>	
Permission	<input type="button" value="Read Only"/>			<input type="button" value="Add"/>
User Name	<input type="text"/>	Password	<input type="password"/>	Permission
<input type="button" value="Delete"/>				

\*Allows up to 25 user accounts.

- **SNMP:** You can set community and some parameters for SNMP server. Furthermore, you can enable SNMP v3 for more security.

- ❖ **Set SNMP Configuration**

- Authentic Community*: set Community name of SNMP server.
- Trap Community*: set Trap Community name for SNMP server to send trap packets.
- Trap Address*: enter an IP address to send the Trap packet.
- SysContact*: enter some letters for variable of *SysContact* that represents the name of system contact.
- SysName*: enter some letters for variable of *SysName* that represents

the name of system.

- ✓ *SysLocation*: enter some letters for variable of *SysLocation* that represents the location of system.
- ✓ *EnableAuthenTrap*: enter 1 or 2 for the variable of *EnableAuthenTrap* that represents to enable (1) or disable (2) to send Trap packets receiving the wrong Community name.
- ◆ SNMP V3
  - ✓ *Enable SNMP V3*: select or clear **Enable SnmpV3** support
  - ✓ *User Security name*: set user security name of SNMP v3
  - ✓ *Auth Password*: set authentication password of SNMP v3.
  - ✓ *Privacy Password*: set privacy password of SNMP v3.

The screenshot shows the JAHT configuration interface. The top navigation bar includes links for HOME, STATUS, CONFIG, and CONTACT US. The main title is "CONFIG". On the left, a sidebar menu lists General Configuration, USB Device Information, TCP/IP, Supported Protocols, User Accounts, SNMP (which is selected and highlighted with a cursor icon), Email, Restart Server, and Maintenance. Below the sidebar is a logo featuring a stylized letter 'J' inside a circle. The main content area is titled "Set SNMP Configuration" and contains a table with the following data:

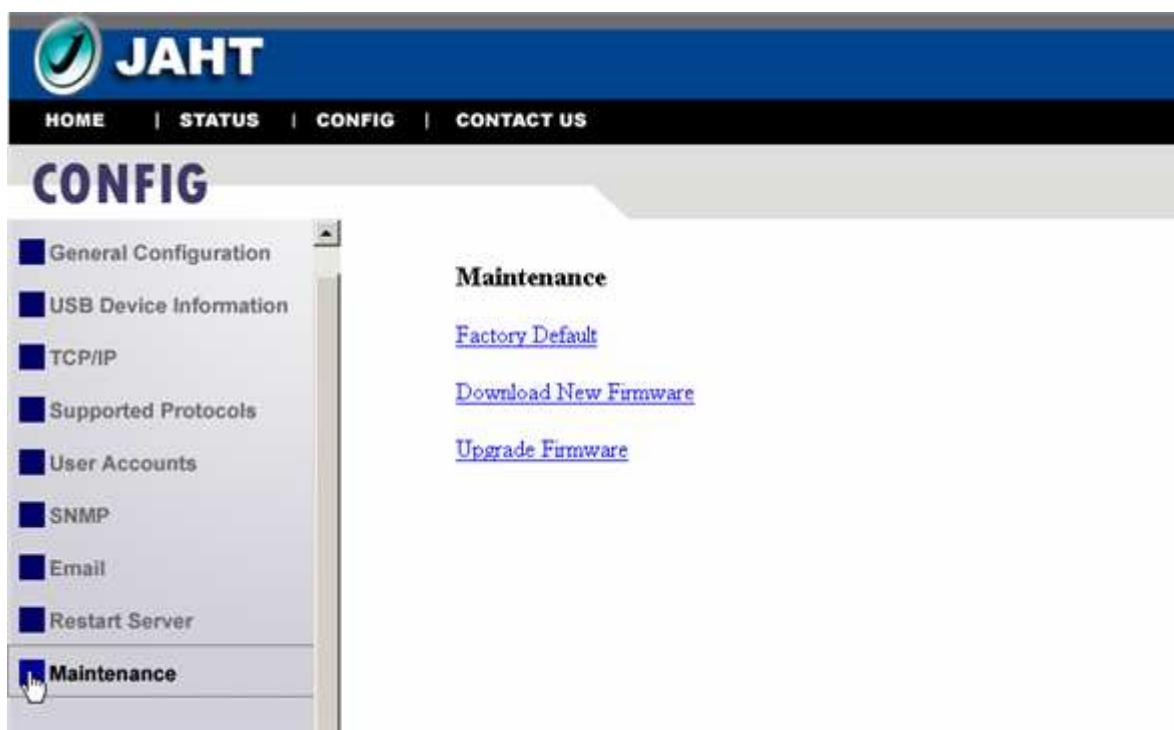
Name	Value	Comment
Authentic Community	public	15 letters [max.] (Password)
Trap Community	public	15 letters [max.]
Trap Address(IP)	0.0.0.0	IP address
SysContact	helpdesk@yourcompany.co	60 letters [max.]
SysName	JMS-202	60 letters [max.]
SysLocation	headquarters	120 letters [max.]
EnableAuthenTrap	2	1: Enable, 2: Disable
<b>Enable SNMP V3</b>		
User Security Name		8 - 15 letters
Auth Password		8 - 15 letters
Privacy Password		8 - 15 letters

At the bottom right are "Submit" and "Reset" buttons.

- **Restart Server**: click this button, the Server will restart.



- **Maintenance** If you want to restore factory default values of the Server and upgrade new firmware, you can use the Maintenance tool.
  - Factory Default:** click this button, the Server will restore factory default values.
  - Download New Firmware from Website:** click this button to download new firmware or user software from this product's public website.
  - Upgrade Firmware:** click **Open** to find the firmware file to be upgraded. Click **Upgrade** to upload the firmware into the Server.



## **Chapter 11 Email Alerting**

This Server emails a notification to the user at these events:

1. *Adding or Removing a USB device.*
2. *System Error.*

## **Chapter 12 SNMP**

This Server runs an SNMP daemon supporting SNMP v1, v2c, and v3 protocols (Simple Network Management Protocol). Users can use SNMP client software such as HP OpenView to manage the Server. The Server supports all relevant parts of MIB-II and a private MIB. You can set these MIB variables from the Server's web pages or by using the Control Center.

# Chapter 13 Troubleshooting

This chapter provides useful information to help you resolve difficulties that you may experience with your Server. Fault symptoms, possible causes, and remedial actions are provided within a quick reference table. This Server's USB ports only support MFPs, printers, scanners, and mass storage.

## 13.1 LED Indicators

Indicators	Color/Behavior	Description
Power	Orange	Power On
	Not lit	Power off/System error
Link	Green	Network connected
	Not Lit	No physical connection to network
Status	Green blinking	Activity on network
	Not lit	No activity on network
USB1	Green	USB device connected
	Green blinking	Connected USB device error
	Not lit	No physical connection to USB device
USB2	Green	USB device connected
	Green blinking	Connected USB device error
	Not lit	No physical connection to USB device

## USB Device Status

Devices	Status	Description
Printer	Ready	Printer is ready.
	Printing	Printer is printing.
	Out of paper	Printer is out of paper.
	Error	There are errors in network printing.
Mass Storage	Ready	Storage is ready.
	Error	There are errors in network File server.
Scanner	Ready	Scanner is ready.
	Flatbed Scanning	Flatbed of scanner is scanning.
	Scrollfed Scanning	Scrollfed of scanner is scanning.
	Error	There are errors in network scanning.

# Chapter 14    Restore Factory Defaults

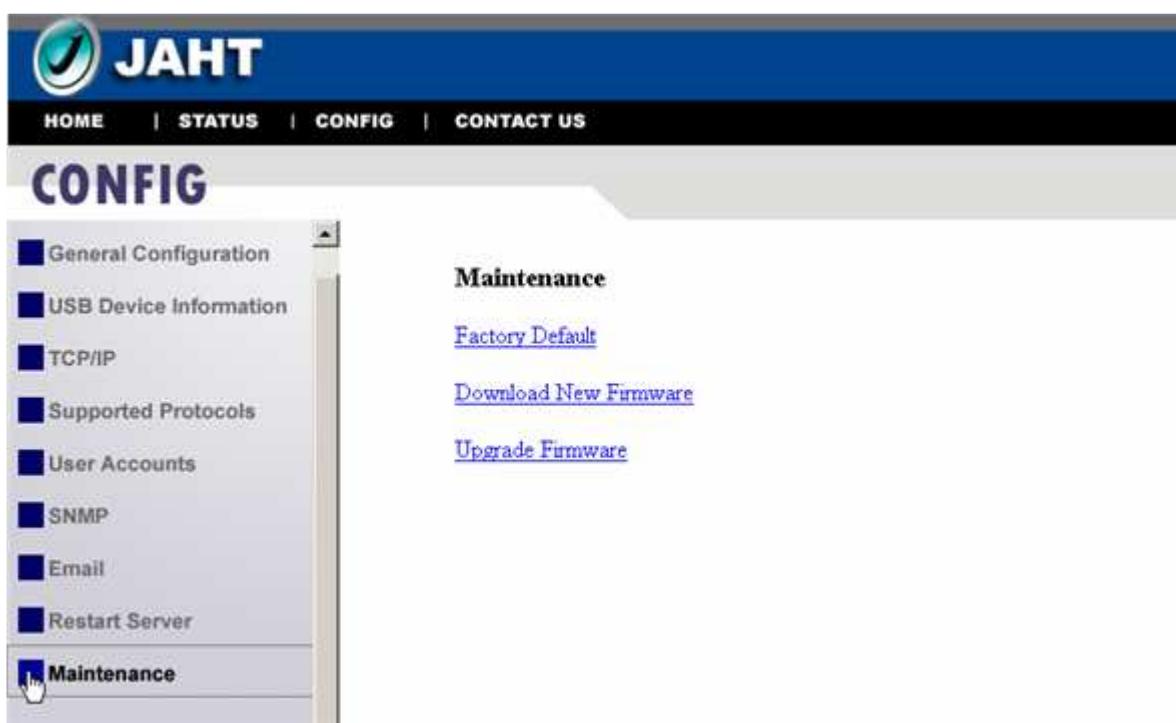
You may restore the Server's default parameters by one of the following methods.

## 14.1 Using the Control Center

1. Start the Control Center.
2. If the tool finds Servers in your local area network, then you have to select a Server from the Server List.
3. Double click the highlight list and enter the Server's administrator (default: *admin*) and password (default: *admin*).
4. After you have logged in successfully, from the Server menu, select **Maintenance**. The **Maintenance** dialog appears.
5. Click **Factory Default**.

## 14.2 Using the Server's Web Pages

1. Go to the Server's web page and click **CONFIG**
2. Enter administrator (default: *admin*) and password (default: *admin*).
3. Click **Maintenance**.



4. Click **Factory Default**.

**Load the Factory Default?**

This server will load the factory default and then restart!

[Yes](#)

[No](#)

5. Click **Yes** to confirm

### 14.3 Using Init Button

Plug in the power adaptor while pressing the Init button until LED indicators of Power, USB1 and USB2 blink. After that, plug off the power adaptor and then plug in the power adapter again to restart the Server. Finally, the Server will operate using the Factory Default values.

### 14.4 Default Parameters List

#### Host Information

- Comment (Optional): **JMS-202 USB MFP Server**
- Host Name: **JMS-202**
- Workgroup: **WORKGROUP**
- Code Page of File Server: **Western European**

#### TCP/IP

- Automatically get IP by DHCP: **Enabled**
  - Manual DNS: **None (Disabled)**.
- Static IP: **(If DHCP server is not available)**
  - IP Address: **192.168.1.100**
  - Subnet Mask: **255.555.255.0**
  - Default Gateway: **none**
  - DNS Server: **none**

#### Supported Protocols

- LPR Printing: **Enabled**
- IPP Printing: **Enabled**
- Raw TCP/JetDirect Printing: **Enabled**
  - TCP Port (USB1): **9100**
  - TCP Port (USB2): **9101**
- SMB/CIFS Print/File Server: **Enabled**

- Internet Access: **Disabled**
- Server Authentication: **Disabled**
- FTP Server: **Enabled**
  - FTP Port: **21**
  - Set Maximum Session Number: **5 (Enabled)**
  - Passive Mode: **Enabled**
  - Server Authentication: **Enabled**
    - Allow Anonymous Login: **Disabled**
- SANE Server: **Enabled**
  - SANE Port: **6566**
- UPnP: **Enabled**

## User Accounts

- Administrator: **admin**
- Password: **admin**

## SNMP

- Authentic Community: **public**
- Trap Community: **public**
- Trap Address: **0.0.0.0**
- SysContact: **helpdesk@yourcompany.com**
- SysName: **JMS-202 USB MFP Server**
- SysLocation: **headquarters**
- EnableAuthenTrap: **2 (disable)**
- SNMPv3: **Disabled**
  - User Security Name: **None**
  - Auth Password: **None**
  - Privacy Password: **None**

## Email

- SMTP Protocol: **Disabled**
- SMTP Server Name: **None**
- SMTP Port Number: **25**
- Subject: **None**
- From Address: **None**
- To Address: **None**
- Cc: **None**
- SMTP Server requires authentication: **Disabled**
  - Account Name: **None**
  - Password: **None**

## Maintenance

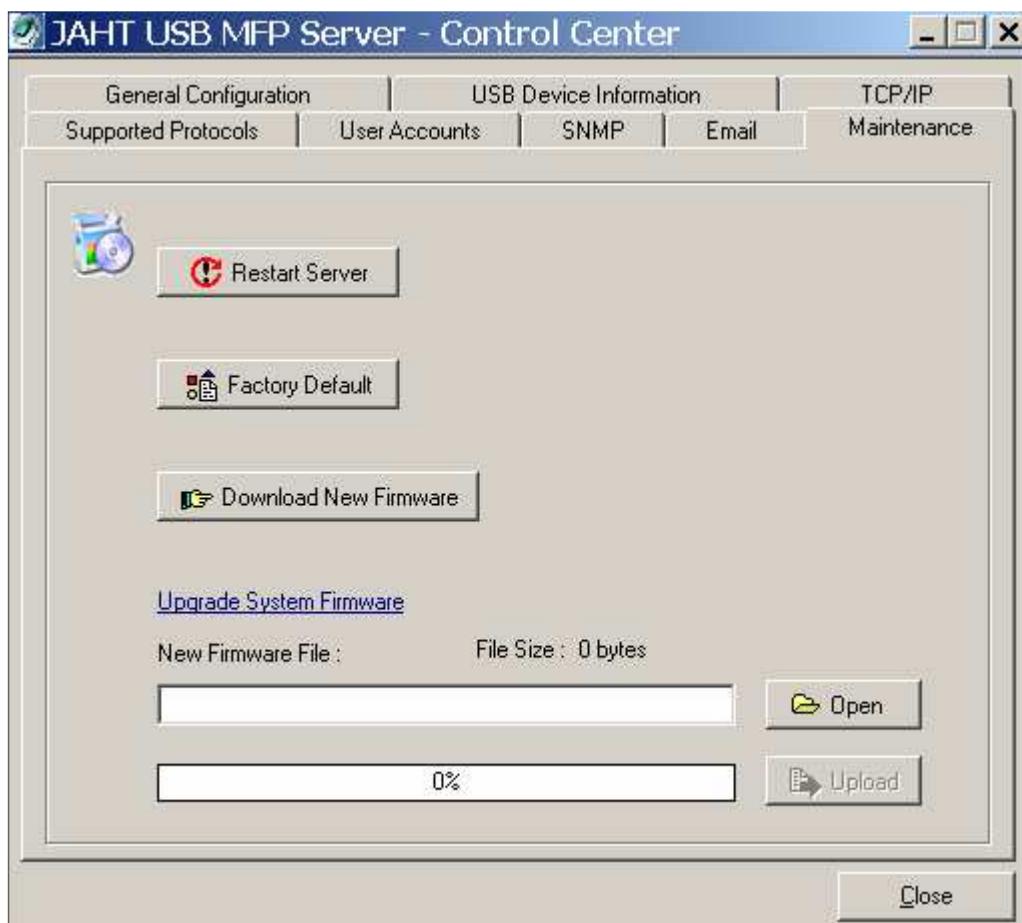
- Download New Firmware: <http://www.jaht.com/download/firmware.htm>

# Chapter 15 Upgrade Firmware

This chapter describes how to upgrade firmware. Please follow one of the following Procedures:

## Procedure A: Using the Control Center

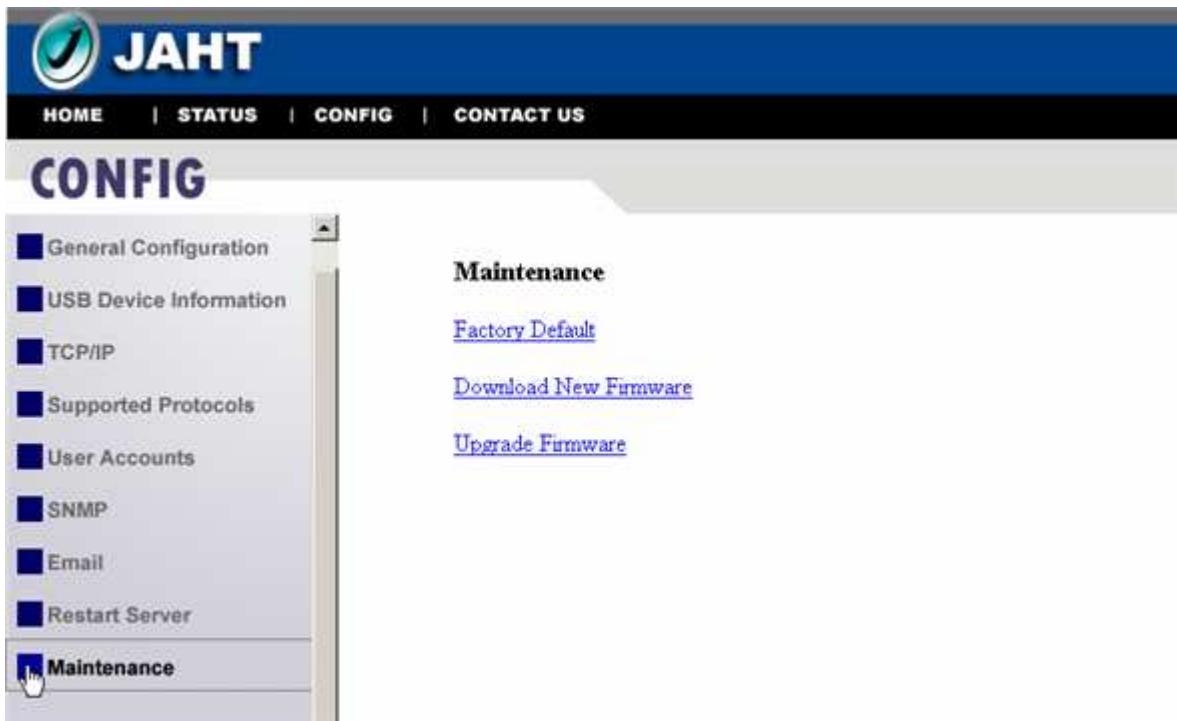
1. Open Control Center. It will automatically search the existing Servers and display their statuses.
2. Select the Server that you want to upgrade the firmware. Double click the selected Server and enter Administrator (default: *admin*) and Password (default: *admin*).
3. Select the **Maintenance** button.
4. Click **Open** to find your new firmware file and click **Upgrade** to start upgrading the firmware.
5. Wait for 15 seconds for system reboot.



## Procedure B: Using the Server's Web Pages

1. Power on the Server. Suppose that the Server is in DHCP mode.
2. Check the Server's IP address.

3. First, run Control Center. It will automatically search for Servers on the LAN. Then Servers' IP addresses will be shown in Control Center.
4. Run any Web browser, like Microsoft Internet Explorer. Go to "<http://Server's IP address>" or "<http://Server's Host Name>" to access the Server's home page.
5. Click **CONFIG** at the top of the menu.
6. Login the Server with Administrator (default: *admin*) and Password (default: *admin*).
7. Click **Maintenance**.
8. Click **Upgrade Firmware**.



9. Click **Browse** button to choose the file of new firmware.
10. Click **Upload** button to start firmware upgrade.
11. Wait for 15 seconds for system reboot.

The screenshot shows the 'Upgrade System Firmware' page. It features a dark blue header bar with the text 'Upgrade JAHT JMS-202 Firmware'. Below the header is a form with a 'New Firmware File' label, a file input field, a '瀏覽...' (Browse...) button, and an 'Upload' button.

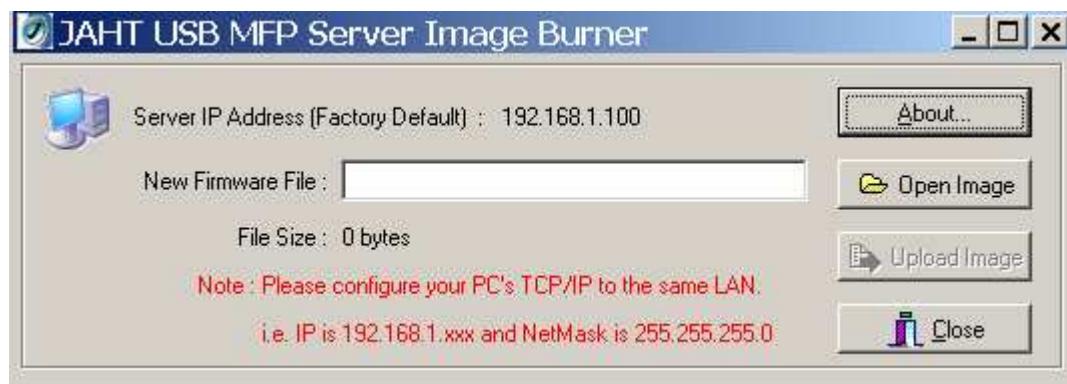
## Procedure C: Using the Init Button and the TFTP Client

1. Plug in the power adaptor while pressing the Init button until LED indicators of Power, USB1 and USB2 blink. ***Please note that after that, the Server will operate using the factory default values after restarting, i.e., your Server's configuration will return to Factory Default values.***

- Start the TFTP client Tool: *Image Burner*



- Enter the Server's Fallback IP address: 192.168.1.100 and click **Open Image** to open your new firmware. Please note that you must configure your PC's TCP/IP such that PC and the Server belong to the same LAN, i.e. PC's IP is 192.168.1.xxx and subnet mask is 255.255.255.0.



- Click **Upload Image**.
- Wait for **Image Uploading** to finish and then click **Close**.
- Plug-off the power adapter and then plug-in the power adapter to restart the Server.

## Chapter 16 The Init Button

The usage of the init button :

Plug in the power adapter while pressing the Init button until USB1 and USB2 LED indicators blink alternately. After that, the Server will do the following tasks:

- Reset the Server to factory default, which will restore most of the parameters and settings to factory default values,
- Perform a TFTP server. You can upgrade new firmware using the "Image Burner" utility.

Note: After performing the tasks mentioned above, you have to plug off the power adaptor and then plug in the power adaptor to restart the Server.

----- END -----